Lecture
ON
DISEASES OF THE CHEST CAVITY
REQUIRING
SURGICAL TREATMENT.

Delivered at the Hospital at Brompton, Jan. 23rd, 1882,

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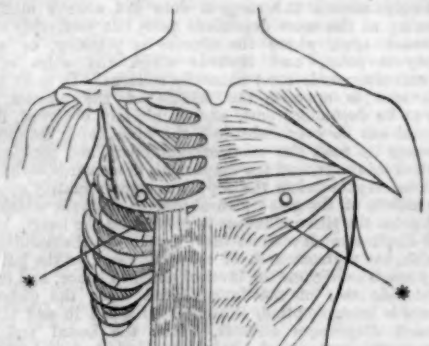
(*Reported by* HENRY MAUDSLEY, M.B.Lond., *and revised and amplified by the Lecturer.*)

(*Continued from page 300.*)

SPONTANEOUS perforation of an empyema on to the surface of the chest (for the sero-fibrinous exudations do not perforate), or, as it is called, "empyema necessitatis," occurs very frequently at one given anatomical spot. Of the first eighteen cases of this complication or termination, which I met with in printed records in which the place of perforation is alluded to, one only occurred in the sixth intercostal space; the rest were presumably in, or not lower than, the fifth space; and I can call to mind six cases in my own experience. The older writers, who saw more instances of perforation than ourselves, speak of the thoracic fistula as being commonly in the region beneath the nipple—according to Billroth, "unter der Brustwarze"; others describe it as being in the mammary or pectoral fold; and in many instances, including two in children, the spot is accurately defined as being in the fifth space. It appears, however, that in children the perforation often takes place higher up, even as high as the second interspace. As to



This diagram shows the weak spot (**) in the chest wall, on the one side with the deep muscles bounding it, and on the other as covered by the superficial layer.

the fifth interspace, the arrangement, in ordinary cases, of the adjacent muscles is as follows. The external intercostal muscle terminates, as usual, near the costal cartilages, to the outer side of the *spot* in question, at and beyond which, towards the sternum, only a thin fascia covers the internal intercostal muscle; the lesser pectoral, which ascends from the fifth rib, is of course altogether above the fifth space; the outer border of the rectus muscle of the abdomen passes up to the fifth cartilage, and limits the spot on its inner side; superficially to these parts the thick bundle of the great pectoral, which springs from the sixth cartilage, crosses above this spot, although a few thin fibres which arise from the sixth rib, and others which blend with the external oblique muscle of the abdomen or with the sheath of the rectus, may pass over it; or the slender upper fasciculus of the oblique muscle itself may cover it. Here, in fact, is a part of the chest wall, below the fifth rib and beneath the nipple, relatively unprotected by the adjacent muscles. The internal intercostal muscle, the thin intercostal fascia, and the weakest portions of the great pectoral and the external oblique, together with the common fascia, are, besides the skin, the only coverings of the pleural sac in this situation. It is a very weak part of the pleural boundary, and this is a valid reason why special bulging and spontaneous perforation should occur preferentially in this region—that is, in the infra-mammillary line in the fifth interspace. It may also be remarked that this spot corresponds nearly with the middle of the pleural cavity when that is much distended. An empyema may be regarded as a great pleural abscess, and, as we know, abscesses often point opposite their centre. It is, further, true that the fifth intercostal space is wider than those below it, and its limiting ribs being held to the sternum give firmness to its borders, conditions which may help the thinness of the chest wall here in determining the place of perforation. The spaces above are still wider and equally well supported by the ribs, and there is an inter-fascicular part of the great pectoral over the second space, which is exceptionally thin, and it is here that perforation is said often to take place in children.

In speaking of the pathological conditions and complications attendant upon pleuritic effusions, I have purposely directed your attention, first, to the character of the effused fluid, for on this their appropriate surgical treatment will be found to depend. There are two essentially different modes of such treatment, which I would term the *close* and the *open* treatment. The former consists either of aspiration, or of paracentesis with a fine trocar and cannula, followed by immediate closure of the puncture; the latter, either of paracentesis with a large trocar and cannula, or of incision into the pleura, followed by open drainage.

Now, from the evidence already accumulated on this subject, it appears to me that two general propositions may be held as established—namely, (1) that all sero-fibrinous pleuritic effusions may be treated hopefully by the close method; and (2) that sero-purulent and purulent effusions cannot be so treated hopefully, but require the adoption of the open method. If therefore, the well-known signs of the presence of fluid being evident, the diagnosis as to the character of the effusion be otherwise obscure, a small exploring syringe armed with a fine, surgically clean—that is, a properly disinfected—aspirating needle, about two inches in length, may be introduced to determine this point, and the proper mode of treatment will then be plain. If the fluid be sero-fibrinous, the time at which the operation should be done will be regulated by the quantity of the fluid, the date of its effusion into the pleura, and of course the urgency of the symptoms produced by it. In children, for example, pleurisy is usually very acute; often in a few hours the child is panting for breath, and in a few days the chest is full of fluid; moreover, the effusion in children is very frequently purulent, either rapidly becoming so, or being so from the beginning. In children therefore the rule is that prompt relief should be given. In young persons about the age of puberty, the fluid also forms quickly, and is rather prone to become purulent, so that special vigilance is here necessary. In the adult, the effusion is often subacute or chronic, and at first sero-fibrinous, but only after a time acquires a sero purulent or purulent character, so that at this period of life there is less urgency as regards immediate operation. In any case, and at all ages, if the fluid be sero-fibrinous, the close treatment is invaluable; and it may be repeated at short intervals, if necessary several times, provided that on neither the first nor on any subsequent occasion no large accumulation of fluid be knowingly permitted, for fear that the lung should be too much or too long compressed. If the fluid should occupy the lower third of the distended pleural cavity, and shows no disposition to become absorbed, it should be removed; and if effusion again take place, it should not be allowed to reach the same amount as before. On the other hand, in any case and at all ages, if the sero-fibrinous effusion is followed by a sero-purulent or purulent effusion, or if it be either of these at first, then the continuance or the use of the close method is accompanied with risk. In either event time will most probably be lost; pus will most likely collect afresh; other complications may arise in the pleural cavity or wall; the lung if not already diseased may become so—that is, inflamed, tuberculous, excavated, or perforated; or it may not only suffer from prolonged compression, but get covered by false membrane, and so be unable to be refilled with air, when at length the open method of treatment becomes inevitable. Instances of sero-purulent and purulent effusions, especially in acute pleurisy in children and in

young persons, treated by one or more prompt aspirations, and therefore under the close method, not unfrequently end favourably; but the unfavourable cases are at least as numerous; and, as a general practice, I should recommend in them the immediate or very early adoption of the open plan of treatment.

The *close* treatment. The skin of the patient and the hands of all concerned in the operation having been disinfected, an aspirating needle thoroughly cleansed and then dipped in carbolised oil should be entered through the sixth interspace on the right side, and the seventh on the left in the mid-axillary region, or wherever previous antiseptic exploration has revealed the existence of fluid. The exact place chosen should be about on a level with the fifth space in front, the spot of "spontaneous perforation"; it is, I believe, needless to puncture lower down, unless the effusion be specially situated and circumscribed there. The exhausting apparatus should work easily and smoothly, and the force employed be moderate; the fluid should not be drawn off too suddenly, nor too much at one operation. From eight to sixteen ounces in a child, and from twelve to twenty-four ounces in an adult, are, as a rule, sufficient. Symptoms of constriction, dyspnœa, or syncope, of course, render it necessary to arrest the flow at less quantities than these. If a large quantity be drawn off, the vessels of the hyperæmic pleura lose support, and fresh effusion may rapidly ensue; if it be drawn too violently or suddenly, rupture of these vessels may occur, followed by hæmothorax, or, in the case of a softened condition of the lung, by rupture of its air vesicles with pulmonary emphysema, or rupture of its coverings and pneumothorax. Early, slow, gentle, and limited aspiration will probably be followed by absorption of the residual fluid, whilst if violently performed it is more likely to lead to renewed effusion or suppuration. Complete evacuation, as advocated by the followers of Trousseau, may bring about a sudden cure, but a survey of many recorded cases proves that the greatest success has followed early, cautious, and partial removal of the fluid, repeated, if necessary, until absorption has set in. In no case of simple sero-fibrinous effusion, would I inject anything whatever into the pleural cavity. If the fluid be highly fibrinous or unusually viscid, or if it already contain a few delicate coagula, which may be the case if any red blood-corpuscles have been extravasated into it, a full-sized aspirating needle should be used, provided with a probe for clearing it, if the suction power of the aspirator be insufficient to dislodge the clot. During aspiration, and also when removing the needle and closing the puncture with collodion, no air must be admitted into the chest; indeed, this is of the essence of the operation of aspiration, and, together with the command it gives over the contents of the pleural cavity, constitutes its main advantage as compared with paracentesis with a fine trocar and cannula, however these instruments may be adapted, modified, or guarded. Aspiration thus carefully performed will but seldom, in otherwise healthy persons, give rise to suppuration; but if a trocar and cannula be used, however fine or specially constructed, air will often pass in along or by the side of them into the pleura, and almost certainly so in the repeated use of these instruments. It has been suggested, under the close method of treatment, to irrigate and even wash out coagula by alternately filling and emptying the pleural cavity through a larger aspirator or cannula; and Dr. Hicks has brought here for your inspection a most ingenious and perfect double aspirating bottle for that purpose. But as a single residual clot will suffice to set up continuous irritation, I am not inclined to trust, as a rule, to such a method, although it may be tried; but where the coagula are numerous or large, the open treatment had better be promptly adopted.

The open treatment.—Under this plan, which is preferable in sero-purulent and purulent effusions, and necessary in their several grave complications, paracentesis with a large trocar and cannula is a safe and less formidable proceeding than an incision with a scalpel, which is a more efficacious though more serious operation. In either plan, the strictest antiseptic precautions should be taken in operating. The use of the spray and free drainage into antiseptic dressings, together with suitable irrigations and injections, if these be advisable, are to be recommended.

The point of entrance into the pleural sac, if in the mid-axillary region, provided there is fluid there, should not be lower than the sixth space on the right side, and the seventh on the left, which places, as already stated, are about on a level with the common spot of "spontaneous perforation," in the fifth interspace in front. But I advocate the selection, at all events in the adult, of the fifth space, at or as near as possible to that spot, regard being necessarily had to the position of the pericardium on the left side. I would advise in any case in the adult a close examination of the fifth space beneath the nipple; for I should be prepared to find in a certain number of instances of purulent effusion, evidences of some *thinning* of the chest walls there, long before there was any distinct swelling or redness, or other sign of spontaneous perforation; and, in such an event, it would certainly be right to operate at that place. Cases of spontaneous perforation or of artificial incision through the point of threatened perforation, provided that the opening of the pleural sac has not been too long delayed, and that free drainage has been afterwards secured, appear by the records, so far as I have been able to discover, to end as favourably as those in which paracentesis or incision has been practised in the seventh, eighth, or ninth interspace, or even more favourably.

Cases of spontaneous perforation in which the aperture has been subsequently opened freely appear also to do well. Even those in which a posterior counter-opening has been regarded as necessary, show as favourable results as those in which counter-openings have been made after a first operation in some lower interspace. On the contrary, an analysis of many recorded cases has shown me, what agrees with my own experience, that many cases in which lower openings have been first made have been unusually obstinate and protracted, some of these, as I know, remaining still uncured. Lastly, it may be added that many authorities (Roser, Billroth, Wagner, Professor Morgan, &c.) expressly indicate the fifth interspace as the proper situation for paracentesis, incision, and drainage, without referring this practice to an imitation of nature. Whilst, therefore, laying down a rule never to perform open paracentesis or incision lower than the sixth or seventh interspace at the sides of the chest, I would, in the adult, venture to recommend in preference the fifth space nearer to the front.

The idea that we necessarily drain the pleural cavity most effectually by making a puncture, or an incision at the *lowest* available point *behind*, is, I believe, a chimera. Even in an ordinary abscess the surgeon does not always make an opening at the most dependent part, but preferably at the thinnest spot, where the abscess is pointing, or seems likely to point, and towards which the sides of the abscess afterwards most naturally collapse. In most cases, this spot is opposite the middle of the abscess, and not at its dependent part, and, as already observed, if the pleural sac be over-distended, the lung being compressed towards its root, the mediastinum, heart, and pericardium pushed sideways, and the diaphragm downwards,—then the fifth interspace below the nipple is approximately opposite the middle of the great pleural abscess, towards which central point the ribs endeavour to recoil, and the heart, lungs, and diaphragm all tend to move back. In the condition of health, the topmost arch of the diaphragm on the left side may reach as high as the level of the fifth space, and on the right side that of the fourth; and when the distended pleura is being emptied, the chest walls fall in and the depressed diaphragm ascends, whilst the costal and diaphragmatic surfaces of the pleura, inflamed and covered with organised lymph or granulations, approximate and, if not prevented, will cohere. If, in any case, a puncture or an incision has been made in the eighth or ninth interspace, or even in the seventh, the aperture has a marked and troublesome disposition to be closed by the diaphragm; and if a drainage-tube has been inserted, and a long one then becomes necessary, the lower part of the tube, placed between the chest wall and the movable diaphragm, keeps up local irritation, maintains suppuration, and prevents the curative process of adhesion. In four cases of chronic empyema, recently or now in this hospital, in which the chest was opened in the seventh, eighth, or ninth spaces, and in every other case of low operation which has come under my observation, the aperture has tended obstinately and prematurely to close, whilst the drainage-tube has been nipped between the diaphragm and the ribs, and has interfered with the wished-for cohesion between the costal and diaphragmatic pleura. In all such cases, I find that a long probe passed into the aperture is immediately deflected upwards by the diaphragm along a narrow space, and then enters a wide cavity higher up. It is, in fact, the lower part of the distended pleural sac which first collapses, whilst the upper part contracts less quickly, and remains open, continuing to yield

pus. This constitutes a different condition from that of an abscess or sinus in the soft parts, with walls equally collapsible at all points. A long drainage-tube in the chest, and such a tube is sometimes twenty inches in length, is undoubtedly a great evil. If the puncture be low down, a long one must be employed to drain the upper cavity; but by making the opening as high as is practicable, say, at or level with the common spot of spontaneous perforation, a very short tube will be sufficient to drain the upper part of the cavity, whilst the lower part will close up by the contact and gradual adhesion of the diaphragm with the chest wall, and requires no drainage. I am satisfied that the evidence is irresistible as to the results being better, with the higher opening and the shorter tube, than with the lower opening and the longer tube. It, moreover, seems to me that counter-openings to drain the back part of the pleura, unless the empyema be localised there and circumscribed, are not so frequently necessary with a high as with a low opening; for in the latter case the drainage-tube interrupts the healing process at the back of the chest. Even if a posterior counter-opening should be required, it should be made higher up than is usual—say, in the seventh or sixth interspace instead of the eighth or ninth.

The place of operation being determined on either by paracentesis with a large trocar and cannula or by incision into the pleura, I believe it is better to make the previous cut through the skin across the two adjoining ribs and the intercostal space, not parallel with them; for, on the former plan, the edges of the skin are less likely to be drawn in between the ribs as the chest wall collapses, and so to cause future trouble and pain. The fifth interspace being widest just to the inner side of the mammillary line, and much wider than any of the lower spaces, the puncture or incision, made of course for the avoidance of the intercostal artery near the upper border of the lower rib, is more easily accomplished than lower down. Moreover, as the fifth and sixth ribs are more fixed than those below them, there is less chance of the opening being subsequently narrowed by approximation of the bones, which in lower situations often proves a great embarrassment. These considerations constitute additional recommendations for using the fifth interspace.

In an acute general empyema, such as is most common in children and young persons, where the effusion consists of laudable though whitish pus, the operation, whether by puncture or incision, performed preferably on the antiseptic method, should be followed by the introduction of a wide but short silver or plated drainage-tube, which should just enter the pleura and may be made to curve slightly upwards. No injection into the pleura is necessary, and the use of one may be most injurious; for complete evacuation is not immediately needed, and violence would irritate the tender and highly vascular lining membrane, might cause hæmorrhage, or determine destructive inflammation and sloughing, as is shown in this wax cast taken from a fatal case in which the pleura had been opened. If an acute empyema be treated early and gently, with a free opening and good drainage, the patient being kept recumbent on the face or side, the pleural cavity will gradually empty itself effectually, its diaphragmatic, mediastinal, and costal boundaries will assume their normal positions and the lung be again inflated. Some adhesions will probably be formed, but the empyema will be cured; and in children and in young persons the lung appears in time even to expand to its normal size. The important condition, however, is this: that the operation has been performed early—that is, as soon as ever suppuration has been detected, before the lung has been much or long compressed or otherwise injured. Hence it is imperative at once to explore, wherever a suspicion of suppuration exists.

But, as shown in the numerous pathological preparations and drawings before us, various complications are met with in empyema. If, for example, the fluid effused, instead of being a uniform laudable pus, should contain coagula or large flakes, in which latter case the pleura is probably also covered with false membrane, these must be washed out, by the aid of a syringe and full-sized catheter, with a solution of permanganate of potash or boracic acid; otherwise, by their presence or by their subsequent decomposition, they will impede the cure, or convert the case into one of obstinate chronic empyema. If the pus be enclosed in distinct loculi, whether few or many, the washing out may serve to break down the septa, and then dislodge and expel them; or a long silver probe, straight or bent in various curves, may be first gently manipulated, so as to rupture and detach the membranes; or a free opening being of great moment, the trocar Puncture may be dilated or enlarged by incision, the finger introduced, the cavity explored, and any membranous flakes and torn laminæ be displaced and removed by washing. If, as in a child, the intercostal space operated upon is too narrow; or if, as in older patients, the adjoining ribs have fallen in and become approximated during the progress of the case—a complication difficult to prevent, and a source of great discomfort and pain in the introduction and wearing of a permanent drainage-tube—a portion of a rib may, as shown by Dr. Thomas, Kœnig, and others, be resected, with great advantage; or, as I have done in the adult, the upper two-thirds of the breadth of a rib may be trephined, in order to give more room for exploration, evacuation, ablution, and prolonged drainage. Similar steps might also be had recourse to, to anticipate and provide against that approximation of the ribs which is inevitable as the collapse of the chest wall goes on, and of which I show you a specimen here.

(To be concluded.)

Lettsomian Lectures
ON
DISEASES OF THE TESTICLES AND THEIR COVERINGS.

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LECTURE III.—PART II.

TUBERCLE; TUMOURS OF THE TESTICLE.

[BEFORE leaving the subject of acute orchitis, Mr. Royes Bell showed microscopic sections and a water-colour drawing, lent by Dr. Sidney Coupland, of the testicles of a young man who met with a violent death when suffering from acute gonorrhœal orchitis. The left testicle only was enlarged, swollen, and engorged; there was a little lymph in the tunica vaginalis. The body of the organ was mainly affected, and not the epididymis, as is generally stated to be the case. Under the microscope the tubules are seen to be distended with cell products, staining deeply with logwood; the intertubular tissue is also swollen by leucocytes and fibrinous exudation.]

Tubercle.—Tubercle is deposited occasionally in the vas deferens, but as a rule in the epididymis, which feels enlarged; often in the globus major, but sometimes in the testicle, and then on its surface. It is slow and painless in its progress, until inflammation and abscess result. The deposit is firm and elastic, but eventually softens. The skin becomes livid, and, bursting, the pus is discharged, a seminal fistula often resulting. Caseous tubercular deposits are whiter, more friable, gummy, and soft, and are more easily enucleated than a syphilitic deposit, which is generally more extensive, yellow, firm, and adherent to the surrounding structures. In general tuberculosis attacking a young subject, very small, transparent, hard tubercles are deposited in the soft loose tissue between the seminal tubes; these coalesce and form larger masses, which destroy the tubules and become granular. The vesiculæ seminales and prostate may also be attacked. Virchow[1] states that the small miliary tubercles form in the loose intertubular connective tissue, and never originate in the epithelium, or in the interior of the tubules. Nepveu states that miliary tubercles spring from the adventitious coats of the bloodvessels. MM. Demme and Villemin consider tuberculosis to be an interstitial process. Carling states that abnormal nutrition in the cellular contents of the tubes induces the formation of miliary tubercles in their walls. Rindfleisch and Kundrat state that there is proliferation of the epithelium of the bloodvessels and their sheaths, and also of the lymphatic vessels and serous membranes. Ziegler has demonstrated that they may also form by the confluence of migratory cells. Buhl insists that tuberculosis is an infectious disease due to absorption of the products of caseous or suppurative inflam-

[1] Pathology of Tumours.

mation-nests. Rindfleisch demonstrates it to be an interstitial process; the tubuli seminiferi remain passive; the very thick tunicæ propriæ of connective tissue which play so great a part in cysto-sarcoma, barely show any sign of nuclear or corpuscular proliferation, even in their outermost layers. Tubercle is localised in the region in which Ludwig and Tomsa have demonstrated numerous lymphatic spaces, and is due to a proliferation of lymphatic endothelia. From an examination of the specimen under the microscope, I am inclined to think that the balance of evidence is in favour of the origin of tubercle in these lymphatic spaces. An inflammatory action appears to have invaded the seminiferous tubules from surrounding lymphatic spaces, and to have caused the seminal epithelium to become detached from the membrana propria; it then seems to coalesce in the lumen of the tube, where it undergoes a change, and forms a gelatinous- or colloid-looking mass, containing a large number of nuclei, being the so-called giant-cell.

One specimen, prepared by Dr. Gibbes, happily shows the process in detail—viz., (1) a normal tube; (2) one in which the epithelium is separated, and, being seen in transverse section, appears as a ring; (3) this epithelium has become massed together in the lumen of the tube; (4) a giant cell is formed; the disorganised tubes are discharged as shreddy material in the pus, which may, instead of being discharged, form thick or cretaceous masses. At times a benign fungus may form. Tubercular deposit most commonly occurs in young adults, and is rare in children. When the vesiculæ seminales are affected, they may be felt swollen and painful by a finger introduced into the rectum. Generous diet, tonics, cod-liver oil, and change of air are most useful aids to recovery; locally the sinuses are to be stimulated by injections, a hot wire, or scraped with a sharp spoon. If the testicle be disorganised or the discharge tell on the patient's health, the gland had better be removed, as the case narrated, of an apparently healthy young man, who died of acute tubercular meningitis, and who had a small caseous cyst in the vas deferens, seems to support the theory that tuberculosis may be consequent on infection.

Cystic disease of the testicle, cystoma or the hydatid disease of the older authors, is rare. The tumour grows to a large size, and causes obliteration of a great portion of the tunica vaginalis, the remaining portion being distended with hydrocele fluid. The tubular substance, apparently healthy, is spread out in a layer over the cystic mass. The tumour is oval, smooth on its surface, and composed almost exclusively of tough-walled cysts, connected into a compact elastic tumour by their opposed walls and tough fibrous tissue. The cysts are oval, from a line to half an inch in diameter, and contain a clear or brownish glairy fluid. In some instances the cyst walls are smooth and lined with tesselated epithelium, in others they contain lobulated intracystic growths covered with ciliated or non-ciliated epithelium. Small nodules of cartilage are often disseminated throughout the growth, and encroach on the cysts. Professor Humphry recommends, when one testicle only is present, that the tubular structure of the testicle should be peeled off the capsule of the cystic growth and preserved. Sir A. Cooper proposed to call this disease "tubular disease" of the testis. No spermatozoa are found in the cysts. Mr. Curling finds that the change takes place in the ducts of the rete testis and not in the tubuli seminiferi, nor in the ducts of the epididymis; and normal tubuli seminiferi are found spread out on the cystic growth. Rindfleisch states that there is an enormous thickening and round-celled degeneration of the tunica propria, complicated by dilatation of the ducts and proliferation into their interior. Förster describes a cystic condition of the seminiferous tubes, the epithelium of which becomes detached and caseous or degenerates into a homogeneous mucous liquid. M. Nepveu describes small pearly corneous epithelial masses within the dilatations. The tumour grows slowly, is painless, and may attain a large size, and thus gives annoyance from its weight and size. Cysts crop up on the surface and feel elastic, the cartilaginous nodules, on the other hand, if present, feel like small hard bullets. The swelling, which is non-transparent, is intermediate in weight between a hydrocele and a carcinoma. Early removal is the treatment; the prognosis is to be guarded, as the disease is often associated with carcinoma or sarcoma. The section of a large testicle removed by Mr. H. Smith shows a lobulated cartilaginous tumour, consisting of many small round masses, of a compact, transparent, opaline cartilage united by tough fibrous tissue. A few cysts are to be seen, the cartilage nodules are developed in the interstitial connective tissue, and by their pressure cause an invagination of the walls of the cysts (Billroth) or encroach on the cavities of the veins (Waldeyer). As a rule, the gland itself is invaded by nodules or a diffuse infiltration, but the epididymis may be invaded primarily or secondarily. In Sir James Paget's[2] case of enchondroma testis which is historical, the cartilage extended in a beaded manner along the cord, and passed through an enlarged lymphatic gland to the inferior vena cava, into the cavity of which it projected. The lungs were filled with cartilage and weighed eleven pounds. Sir James Paget considers this a good example of a local disease becoming a constitutional one through the instrumentality of the lymphatics. The tumour grows slowly, and may attain a large size; it is not painful, and is often attributed to a blow. As a rule, the cord is not enlarged. Early castration is the treatment; when associated with carcinoma the secondary deposits are cancerous, but when cartilage only is present the tumour may be removed without fear of secondary deposits occurring. A testicle may waste and become a fibrous nodule. The section of a fibroid testicle under the microscope shows that the normal structure has disappeared; in its place is found young fibrous tissue, which in parts approaches myxomatous tissue, which is probably the earlier stage of this growth. The section of an infant's testicle under the microscope shows it to be pervaded by a gelatinous growth, the nature of which I am ignorant of. Calcareous deposits may take place in the testicle or in tumours developed within it. Congenital dermoid cysts and entozoa within the testes are so rare as to be curiosities.

Carcinoma attacks the body of the testicle, and, being confined by the tough tunica albuginea, forms a hard heavy tumour; it invades the whole of the organ, also the epididymis, and soon destroys testicular sensation. The swelling is at the onset globular, with flattened sides; in some cases a hydrocele is present, in others the tunica vaginalis is obliterated. The disease attacks a man apparently in good health, and grows in a few months to a large size, is covered with enlarged scrotal veins, and is attended with sharp shooting pains. The swelling is in places so soft and elastic, and the skin so adherent and discoloured, that the surgeon may be tempted to puncture it; blood freely flows, but the swelling does not diminish in size. The cord and lumbar glands enlarge, and are tender on pressure. The belly is tumid, and the lower limb on the affected side swells. The tumour on removal is oval, and slightly uneven on its surface; on section it presents a number of septa, which enclose deposits of morbid tissue. The gland tissue is pushed on one side, but generally is replaced by the soft brain-like new formation, which has here and there cysts formed by extravasation of blood.[3] Thiersch and Waldeyer hold that the cells of cancer are the direct descendants of pre-existing epithelium cells, and that here cancer can never arise unless epithelium be present. The epithelium is that which covers free surfaces, and not that which lines blood-vessels and lymph spaces or cavities, which is called endothelium. Waldeyer considers that the alveoli of the cancer stroma are merely lymph spaces invaded by rapidly growing epithelium cells. The intercellular tissue is scanty and the bloodvessels run in the fibrous tissue. The cells multiply by endogenous formation. The sarcomata have no alveolar spaces, and are of connective tissue origin, generally of an embryonic type. Round, fusiform, or giant cells are found in an abundant stroma, the vessels are fissures between the cells, which increase by division. Birch-Hirschfeld has shown that the soft cancer cells are lineally descended from the epithelial elements of the gland tubuli, some of which, studded with nodular, ill-defined protrusions, lie isolated; or else, expanding somewhat abruptly, they passed continuously into the tumour itself. Rindfleisch agrees that the beginnings of the growth consist of a proliferation of the epithelial elements of the testicle. MM. Cornil and Ranvier consider the starting-point of cancer to be in the connective tissue, large cells from which occupy the spaces of the connective tissue between the bundles of fibres and the lymphatic cavities. Sarcoma and carcinoma are often found associated in the same specimen, and with the former are found cartilage, mucous and adipose tissue, striped and unstriped muscular fibres. In Mr. Butlin's interesting and exhaustive lectures, given at the Royal College

[2] Med.-Chir. Trans., xxxviii., p. 247.

[3] In the specimen under the microscope all trace of the normal structure of the testis has disappeared, and a fibrous stroma, with large cells of epithelial type in its alveoli, has taken its place.

of Surgeons, June, 1880, is to be found an account of the sarcoma and carcinoma of the testis. Round-celled sarcoma occurred most frequently before the age of ten or between fifty and sixty years. Both testes were not infrequently affected. None of the tumours contained cartilage. Glandular affection was present. Deposits in the lungs were rare, but there was widespread generalisation in the bones and skin or subcutaneous tissue. The victims of spindle-celled sarcoma were generally between thirty-five and forty-five years of age. In no case were both testes affected. Cartilage was often present. Glandular affection existed in every case; and in most cases deposits were found in the lungs. Extensive generalisation was not found, as in round-celled sarcoma. Carcinoma was observed to occur most frequently between the ages of thirty and forty-five. Both testes were never affected, and the tumour was unmixed with other tissues. Glandular affection was universal; and the internal organs were often affected. In carcinoma the average duration of life was twenty-five months; in round-celled sarcoma, eighteen months; in spindle-celled sarcoma, thirty months.[4] In spite of this black list, it is our duty to remove the tumour when the cord and glands are not enlarged, because under an anæsthetic the operation is not felt, nor is it dangerous to life; death from internal deposits is less painful to the patient and distressing to his friends than from an offensive fungus hæmatodes. Cases of carcinoma are reported as being well from five to fifteen years after castration by Sir James Paget, Mr. Curling, Mr. Cæsar Hawkins, and others.

Castration.—Having reduced a rupture, if present, puncture the swelling carefully. Make an incision from just below the external abdominal ring to the lower part of the scrotum, to provide for efficient drainage. Having separated the testicle from its surroundings, divide the cord, having previously secured it by passing a stout ligature between the vas deferens and the vessels. A clamp may be used, or not, to fix the cord, which is divided and the vessels tied simply with catgut ligatures or twisted; or the cord and vessels may be clamped and then divided by means of the actual cautery, as practised by Mr. Henry Smith. In a very large tumour the late Mr. Hancock divided and tied all the vessels, reserving the division of the vas deferens to the last.

MULTIPLE SARCOMA, OR HODGKIN'S DISEASE.

By THOMAS OLIVER, M.D.,
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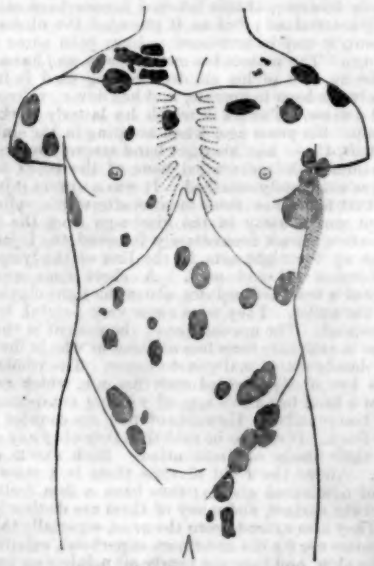
SINCE the publication of Dr. Hodgkin's essay, "On some Morbid Appearances of the Absorbent Glands and Spleen," the attention of the profession has been repeatedly drawn to records of cases in which enlargement of glands in the neck, axilla, and groin, &c., has been the most prominent feature observed during life. It is perhaps true that the discoverer of the disease which now bears his name may have failed to eliminate from the category certain cases of syphilitic disease in the form of gummata and lardaceous degeneration; but he drew attention to this very important fact, that the disease is totally distinct from cancer, and is associated with changes in lymphatic structures. The observations of more recent writers—among whom may be mentioned Wilks, Ogle, and Murchison,—while confirming the opinion expressed by Hodgkin that the disease is not cancerous in its nature, have shown it to be connected with a very fatal form of anæmia, in which it would appear there is no excess of the white corpuscles of the blood. For a demonstration of its relation to changes in the lymphatic system we are indebted to the labours of MM. Cornil and Ranvier, who now speak of it as lymphadenoma. A few of the facts mentioned in the following account may not be in complete harmony with the views of other writers—as, for instance, the condition of the blood; but those of a more general nature, such as multiplicity of tumour and identity in the organs affected, seem to me to be sufficient grounds for the case being included under the name of Hodgkin's disease.

R. C——, aged fifty, a miner from Ferryhill, Durham, was admitted into the Newcastle Infirmary on December 25th, 1879, complaining of pain in the left axilla due to the presence of a tumour, the surface of which had undergone ulceration. The family history is good. The father and mother died from old age, the former at seventy-five and the latter at eighty. His brothers and sisters are alive and well. The patient states that he has always been a healthy man. He never knew what it was to have a day's illness until the age of sixteen, when he had typhoid fever and was laid up for thirteen weeks. From this he recovered, and has since, with the exception subsequently mentioned, been in the enjoyment of perfect health until about six months ago, when he noticed and began to experience pain from a tumour in his left axilla. He has only been away from work, however, for the last six weeks, for about this time the surface of the tumour ulcerated, and began to bleed rather freely. It would appear that before the tumour began to bleed it was larger than it is now; at present it is the size of a hen's egg. The diminution in the size of the tumour is attributed by the patient to the "tumour having bled internally," a statement which seems to be based upon the fact of his having brought up a little blood by the mouth, and of his having passed on two or three occasions a little blood in the urine. The exact date, however, of this internal hæmorrhage cannot be definitely ascertained; but as it preceded the ulceration of the tumour, it may be presumed to have been three or four months ago. The patient is a married man, and has a family of nine living, two of his children having died in infancy. He has always been temperate, and has never suffered from venereal disease. The pit in which he latterly worked was very damp. Six years ago, when assisting in the sinking of a new shaft, C—— had his right hand severely injured by a sledge-hammer, the metacarpal bone of the index-finger of which was completely smashed. It was a severe injury, for he says that for two or three months afterwards splinters of bone kept coming away in the discharge from the wound. Inflammation almost immediately followed the injury, and extended up the right arm in the line of the lymphatics, which became red and hard. A short time after this he detected a few hard nodules above the right clavicle, but none in the axilla. They were never very painful, but they have persisted. The appearance of the patient is that of a man who is cachectic from loss of blood or who is the victim of some deeply seated malignant disease. The whole of his trunk is irregularly studded with tumours, which range in size from a bean to a hen's egg, of varying consistence, and more or less rounded. Upwards of fifty are counted on his body in front. It cannot be said that they obey any definite law in their mode of distribution. Both axillæ contain nodules. Above the right clavicle there is a mass like a cluster of agminated glands; they have a firm feeling, are rough on the surface, and many of them are distinctly lobulated. They also extend down the arms, especially the right. The tumours are for the most part superficial, existing just under the skin, and they are nearly all painless on pressure. At times the patient tells us that the larger tumours are painful whether pressure is made on them or not—a feeling which seems to be related in some way or other to their consistence. When the tumours are hard he says they feel easy, when they get soft they are painful. The skin above some of the tumours has undergone a purplish discolouration. The tumour which has ulcerated—viz., that in the left axilla, has its base composed of healthy-looking skin; while internal to this is an area over which there course streaks of purplish distended vessels. There is a very firm, hard nodule, about the size of a filbert, situated over the temporal bone about one inch to the outer side of the external angle of the right eye. It is painless to the touch, but feels as if it were attached to the bone. The skin is freely movable over it, as it is over nearly all the other tumours. Eighteen tumours are found distributed irregularly over his back; they are smaller than those in front. Chest: Posteriorly percussion is normal. The breath-sounds are somewhat roughened; the expiratory murmur is prolonged over the base of each lung. Over the apices the breathing is full, and here also the murmur of expiration is prolonged. Anteriorly percussion and auscultation are normal. The sounds of the heart are healthy, though somewhat indistinct over the base. Abdomen: The area of hepatic dulness measures three inches in line of right nipple; percussion over this area is attended by

[4] Butlin on the Relations of Sarcoma to Carcinoma (THE LANCET, Aug. 7th, 1880).

a good deal of pain. The area of splenic dulness is enlarged. Little or no pain, however, is experienced on percussion. The fingers plunged deeply into the abdomen fail to detect the presence of enlarged glands or tumours in the omentum. In Poupart's region on the left side there is a mass of tumours, one of which is very large and discoloured. A few small nodules are also noticed in the right groin. A drop of blood which was oozing from the surface of the ulcerating tumour was placed under the microscope, and it showed the red blood-discs to be somewhat dull in appearance, blunt in their outline, and somewhat distorted. There are also very many white corpuscles. In addition there are also numerous corpuscular elements not unlike white blood-cells in appearance, but which seem to be masses of naked nucleated protoplasm. The urine has a specific gravity of 1016, is acid and non-albuminous. The patient was allowed a liberal diet of milk, beef-tea, custard pudding, sherry, &c., and was ordered citrate of iron and ammonia, solution of arsenic, and a lotion of tartrate of iron and potash and permanganate of potash for the ulcer.

From the time of admission until Jan. 12th the patient seemed to improve somewhat, but on this date there is the report that "he looks extremely careworn and haggard." A severe pain which he has frequently complained of in the right arm has been relieved by the subcutaneous injection of morphia, and the hæmorrhage from the tumour, though



greater, has always been controllable. Since our last note relative to the condition of the tumour in the left axilla, marked changes have intervened; nearly the whole of the surface of the tumour has sloughed away, and there is now occupying its place a large ragged ulcer, from which there flows a copious and extremely fetid discharge. The appearance of the tumour reminds one of "cauliflower excrescence." At times the patient feels very faint and dizzy, and on getting out of bed he staggers a little. There is, however, no impairment of muscular power, and no alteration of sensibility. The ophthalmoscope fails to detect anything abnormal in the discs.

Jan. 14th.—In a drop of blood taken from the finger, and placed under the microscope, it is noticed that the red corpuscles have a peculiar tendency to run together, not to form rouleaux, however, but large, irregularly shaped agglutinated masses in whose interspaces are entangled here and there a few white cells. The red corpuscles are extremely cohesive, and become so intimately fused on coming into contact with each other that there results, from this fusion, so to speak, a large irregular mass of protoplasm in which cell individuality is lost. Every now and then the masses tear themselves asunder, the severance being a matter of some little time, during which connexion with each other is still maintained through the medium of a long jelly-like process of albuminoid matter. The splitting up of the blood-mass is exactly imitated by taking a stick of sealing-wax, heating it in the centre, and then tearing the ends asunder. The blood-mass presents a gelatinous appearance, and it is noticed that when the cells are tearing themselves away from the mass they become elongated and spindle-shaped. The white corpuscles, which are increased in number, upwards of forty being noticed on the field, contain four or five bright glancing points, seemingly of a protein nature, and not fat, for they are not dissolved on the addition of ether. Many of these points (? microcytes) are floating about free in the blood, and it is just a question whether they are not the escaped contents of ruptured leucocytes. It was thought that some of the white blood-cells could be detected in the process of rupture. There is one white corpuscle in the field of a very irregular shape, its border is uneven, and it is covered with these points. Mr. Squance, who was with me when I examined the blood, afterwards drew my attention to a little heap of these points, which seemed as if they had just escaped from a collapsed corpuscle which was lying beside them.

On Jan. 19th the blood was again examined, and it is noted that the white corpuscles attract attention from their number and granulated appearance. The protein points already mentioned are very prominent. The red blood-discs still exhibit the tendency to become fused together. Some of the coloured cells are unusually large—larger than the colourless—and many of them have lost the disc-like character of normal cells. Others, again, are smaller than those observed in health.

From this date nothing of any special importance was observed beyond a gradually increasing but very marked asthenia, until Jan. 28th, when there was detected crepitation over the base of the left lung posteriorly, with increase of the vocal resonance. The symptoms of pneumonia became more pronounced, and the patient died on Feb. 13th, death being preceded by coma of a few hours' duration.

At the autopsy many large nodules were found under the skin. The heart was healthy. The bronchial glands were enlarged and black. The right lung contained several firm black nodules, which were easily enucleated from the lung tissue. On section these nodules resembled lymphatic glands. The lung itself was somewhat œdematous and congested. The left lung contained similar nodules to the right, but more of them, and was œdematous. The liver contained similar nodules, one or two of which had fluid contents of a thick, putty nature. The kidneys presented nothing unusual, but the spleen was much enlarged, and measured twelve inches in length. It contained six large nodules, about the size of an orange, which on section were found to resemble the grey matter of brain. There was very little splenic pulp left. The glands in the mesentery were enlarged. A small polypoid nodule was found attached by a pedicle to the inner surface of the posterior wall of the bladder. On the upper surface of the right hemisphere of the brain were found a few small nodules, soft and easily separated from the brain tissue, and of a rather dark colour. The right ventricle contained a rather large quantity of fluid. Just behind the right optic thalamus there lay a nodule about the size of a small nut. It was extremely soft, almost diffluent, and lay one centimetre to the right of, and somewhat in front of, the corpora quadrigemina. In the left corpus striatum there was a nodule which had undergone softening, and which had involved part of the lenticular nucleus. This softened nodule measured one a half centimetres in length. The right inferior temporo-sphenoidal convolution contained a small nodule, and a small area in the left occipital lobe had undergone softening. The eyes were examined, and both discs were found to be healthy. The spinal cord was also healthy. On microscopical examination all the tumours were found to belong to the type of the round-celled sarcoma.

(To be concluded.)

UNIVERSITY COLLEGE, BRISTOL.—The council of this college have decided on the erection of an additional wing to the present buildings in Tyndall's-park. The medical school will, however, still remain in the temporary and inadequate buildings. Strenuous efforts are being made to secure an increased building and sustentation fund, in order to secure improved accommodation for this department of the university.

TRIPIER'S AMPUTATION OF THE FOOT.

BY JOHN KELLOCK BARTON, M.D. DUB.,
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CASES of injury or disease of the bones of the foot not unfrequently occur in which the surgeon feels unwilling to sacrifice the ankle-joint, as must be done if he perform Syme's amputation, and yet in which the methods of Hay or Chopart are either insufficient or otherwise objectionable. Professor Tripier of Lyons has endeavoured to meet this want by a subastragaloid amputation, which I think may prove particularly useful. M. Tripier had not, when he made the proposal, had an opportunity of testing it on the living subject; but Mr. Hayes of this city has published two cases[1] in which he has done so with encouraging success; and I now record another case, the first in which it has been performed for caries, Mr. Hayes' cases having been one of injury the other of epithelioma.

In the *Medical Record* of April 15th, 1880, and also in Mr. Hayes' paper in the *Dublin Journal of Medical Science*, Dec. 1881, will be found full details of the operation, with the advantages claimed for it by its author.

Rhoda B——, aged fifteen, was brought to me in March, 1881, by her mother, the widow of a surgeon, with the request

that I would examine her right foot and give my opinion of what should be done. I found distinct evidence of caries of the internal cuneiform bone, and it appeared to me in a high degree probable that the scaphoid and other bones of the tarsus were also carious. The ankle-joint was, however, free from suspicion, as was also the astragalus, but the calcis was more doubtful. There was no pain on pressure anywhere over the calcis, and the patient could firmly place her heel on the ground and rest her whole weight on it without any pain. The opinion I gave was that amputation alone would be of any use, and I reserved for future consideration the question as to how far that amputation must extend. Syme's amputation at the ankle-joint, though held in high esteem by practical surgeons, yet takes so much away and shortens the limb to such an extent, that in cases where the anterior portion of the foot only is affected, both surgeon and patient naturally inquire, Can nothing better be done? Chopart's amputation has justly fallen into disrepute, particularly in cases of caries. Having learned from the cases recorded by Mr. Hayes, of the Mater Misericordiæ Hospital, that Tripier's operation gave a useful stump, I considered the possibility of substituting that proceeding for Syme's in this case. The section of the calcis, which forms an essential feature of Tripier's operation, induced me to give it a trial, and if, when I made this section, I found that bone diseased, I could then amputate through the ankle.

With this understanding I consented to attempt to save the ankle-joint and heel for my patient by Tripier's method, and the operation was performed upon the 22nd of March last. Esmarch's bandage was applied. The flaps having been cut and the heel dissected back, I applied the saw to the inner surface of the calcis, about half way down its depth, and made the section directly outwards. The articulating surface towards the cuboid was perfectly healthy, but in the centre of the bone the cancellous structure was soft and yellowish. This I freely gouged away, until I came to firm, healthy bone. The flaps came easily together, but I noticed the lower flap looked pale and bloodless; there was no tension nor yet any bagging. A drainage-tube was inserted and the stump dressed with Listerian antiseptic dressings.

Next day I dressed the stump, there being some staining of the gauze, when it was evident that a portion of the lower flap would slough—nearly half of it did slough,—which I believe was due to the Esmarch bandage; and yet in spite of this an excellent and useful stump able to bear the weight of the body has resulted. I saw the patient last week, when she walked into my room with a scarcely perceptible limp, the leg being only half an inch shorter than the other, and an artificial foot enabling her to make a very presentable figure.

I may add that the sound covering of the anterior part of the stump was greatly forwarded by free grafting of skin on the granulating surface.

The above drawing represents the stump accurately.

[1] British Medical Journal, Feb. 1881; and Dublin Journal of Medical Science, Dec. 1881.

AN EXTRAORDINARY MORPHIA CASE.

BY PERCY BOULTON, M.D., M.R.C.P. LOND.,
PHYSICIAN TO THE SAMARITAN FREE AND QUEEN CHARLOTTE'S HOSPITALS, AND TO THE BRITISH HOME FOR INCURABLES.

THE following remarkable morphia case has lately come under my notice:—

Miss ——, a delicate young lady, aged twenty-eight years, was brought up to London and placed under my care on October 24th, 1881. I found that from fourteen to seventeen years of age she had been more or less cataleptic, and that from 1875 to 1879 she had off and on been attended by various medical men for either uterine or spinal complaints. In June, 1879, when in the country she complained of backache and sickness, and sent for a doctor, who made some local applications to the uterus. After this the bladder became painful, and in August, 1879, this amounted to agony. Her doctor writes that "he was obliged to use the catheter, the forcing pains were so terrible that it seemed as if the bladder would be forced out of the body. After a consultation the urethra was dilated, and the little finger passed into the bladder, which was found to be extensively ulcerated and the walls so thin that the finger could almost be pushed through." The result of the dilatation was to relieve the urgent symptoms. The inflammation next, however, extended to the bowels, and morphia was then given hypodermically. At the doctor's request a memorandum was kept of the morphia administered, and this was done from October 1st, 1879, by a most excellent trained nurse who was with Miss ——. A solution of bimeconate of morphia (one grain in eighteen drops) was used, and the lowest monthly record is thirty grains for October, 1879.

In July, 1880, the maximum was arrived at—viz., 280 grains, and on July 26th 12½ grains were injected during the day. The total amount taken between Oct. 1st, 1879, and Oct. 1st, 1881, was 2610 grains, and this exclusive of suppositories. I could not credit this at first, but the evidence is beyond all doubt. I have—1st, the memorandum and testimony of the nurse who was with the patient night and day; 2nd, of her greatest friend, who is a nursing sister of many years' standing and a lady of unquestionable integrity, who watched the case closely and constantly; 3rd, of Miss —— herself; 4th, of the chemist who supplied the morphia, and whose bills for the same are now before me, from which alone the amount can be clearly made out—e.g., for July, 1880, twenty-nine bottles of solution are charged for, each of which contained ten grains. One bottle, how-

ever, I am told, was accidentally knocked over, so that twenty-eight bottles with 280 grains remain for this month.

During 1881 there had been an attempt to reduce the amount; but 700 grains stand on record for the ten months previous to Miss ——'s coming under my charge. Perhaps the most marvellous thing is that she was brought to me on account of certain internal complaints which had been declared to be almost, if not quite, incurable, and the morphia was only incidentally mentioned as part of the treatment.

On careful examination I found that almost all the symptoms could be attributed to morphia. The bowels were so constipated that the fæces (which were as hard as wood) had generally to be taken from her. The expulsive power was *nil*, and peristaltic action totally in abeyance. I could detect no remains of bladder mischief. The urine was alkaline. The left leg was somewhat contracted, so that the foot could not be placed on the ground. These two symptoms were probably hysterical. There was no evidence of pelvic, cellular, or other inflammation. The left ovary was rather low and tender, otherwise vaginal and rectal examination revealed nothing. On the other hand, there was every evidence of morphia habit of long standing. The skin had the peculiar tawny colour, and was as tough as leather. I was told that the point of the hypodermic syringe had twice been broken into the skin owing to its great toughness.

I could only come to the conclusion that the disease which undoubtedly existed in 1879–80 had long been cured, and that the patient was suffering from the morphia.

Treatment.—I attempted entire withdrawal of the drug, but such pain and violent retching followed that I was compelled to give "one hair of the dog." I found one-sixth of a grain sufficient for the purpose in twenty-four hours. In a week I was able to withdraw the morphia entirely, giving fifteen grains of chloral at bedtime to procure sleep. The bowels and digestive organs were got into order by means of a daily pill composed of a quarter of a grain of extract of belladonna and one grain of extract of aloes (Barba.). Relaxation took the place of constipation, and quantities of inspissated bile, together with intestinal mucous membrane thrown off in shreds, were got rid of. A bismuth mixture sufficed to check this gradually, and in three weeks convalescence had set in. In four weeks after coming to London as all but a hopeless incurable, Miss —— was able to walk about with both feet on the ground, and to go out in a bath chair whenever it was fine. Now (eight weeks after coming to town) she walks out, goes to church, and has several times been visiting. All her functions are restored, and she is rapidly getting stouter and stronger.

Seymour-street, Portman-square, W.

"IDIOPATHIC" RUPTURE OF THE BLADDER; RECOVERY.

BY GEORGE PADLEY, L.R.C.P. LOND., &c.,
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A LEADING article in THE LANCET of November 12th last on Rupture of the Bladder induces me to send the following brief particulars of a case which has recently occurred in my practice, and which differs in some respects from any that I have found recorded. Of forty-four cases of this rare occurrence collected by M. Houël, and referred to in the above-mentioned article, seven only were "idiopathic." The following case was of the latter description.

Towards the end of last June I was called to see Mr. J. S——, who had a short time previously consulted me for a syphilitic perforating ulcer of the soft palate. He was suffering from most intense pain in the abdomen a little above the pubes, attended by sharp rigors and vomiting, and other symptoms of severe pyrexia, which recurred intermittently from time to time. There was no distension in this region, but some induration and redness and subsequently swelling. The pain, though relieved by opiates, fomentations, &c., continued very acute, and the redness and induration spread rapidly over the abdomen towards the left side. The case was one of severe and extensive phlegmonous erysipelas. There were rapid suppuration and sloughing of the parts, into which I made a free incision, and through which a large quantity of ichorous offensive discharge freely escaped. Notwithstanding this, the disease spread up the side of the abdomen and chest nearly to the axilla, near which and in the intermediate space other incisions were made and drainage-tubes introduced, the wounds being dressed with carbolic-acid lotion. The greatest portion of the subcutaneous areolar tissue of the region, however, sloughed, and had to be removed, as it became sufficiently detached. The discharge was immense, and the constitutional symptoms, as may be supposed, were of a very grave character. A few days before my return home, after a short absence, while the patient was straining to empty the bladder, a gush of fluid, "about a tumblerful," suddenly spouted out in a free stream from the wound above the pubes. The urine, for such the fluid proved to be, continued for some weeks to be freely discharged through the orifice, and a little continued to escape occasionally, sometimes at long intervals, when there was more than the usual obstruction to its flow through the urethra, as from mucus, &c., until within a few weeks of his leaving this neighbourhood. After the sloughs were detached, the extensive chasms left granulated favourably and cicatrised, a sinus evidently remaining in communication with the bladder, and the patient completely and rapidly recovered his health and strength. An attack of acute pneumonia threw him back for a time, but from this he also made a favourable recovery.

In reply to my earlier inquiries, he at first stated that he had had but little difficulty in emptying the bladder, though the stream of urine was rather small and required more effort to void than formerly, yet not more than had been the case for a long time previously, the bladder being fairly emptied and the urine generally clear. On passing an instrument, however, I found a very close stricture extending through the greatest portion of the canal—at first admitting only a filiform, and afterwards a No. 1, bougie,—which no doubt caused greater difficulty in micturition than he admitted, owing, as he afterwards confessed, to his dread of instruments, having formerly suffered much from their use. There was, he affirmed, never sufficient retention to cause him much inconvenience, and I never found the bladder distended. Up to this attack no pain in this region was complained of.

Such being the facts of the case, what was the immediate cause of the rupture and the discharge of urine? There were, of course, two factors in operation: the sloughing of the abdominal wall and the straining efforts in micturition. Did the perforation of the bladder and consequent extravasation of urine into the abdominal areolar tissue take place in the first instance and set up the cellulitis and sloughing, which afterwards led to the free escape of urine, the pelvic cavity having been protected, and further extravasation prevented, by adhesions around the orifice, a fistulous opening being thus formed? Or were the cellulitis and its consequences, arising from other causes, the primary condition? There can, I think, be little doubt that the first view is the correct one. If so, what caused the rupture? Was it the result of (1) distension and straining, the mucous coat of the bladder having, perhaps, become sacculated and thinned, or even having formed a hernia through the muscular coat, due to the daily repeated efforts to empty the viscus through so small a channel, extending over a very long period of time, and, under a final effort, giving way? or (2) a chronic ulcer leading to perforation under similar conditions? The facts that the patient had at no period suffered any inconvenience from distension of the bladder, and that when I was first called to see him there was no evidence whatever of any such distension, preclude, I think, the former idea; besides which there is, as far as I am aware, no recorded instance of the bladder having been ruptured above the pubes by the mere straining efforts of micturition unaccompanied by some kind of violence. In the only two cases quoted in the leading article, where this accident appears to have been caused by violent action of the abdominal muscles, the rent was found in the back part of the bladder, and in distension from stricture of the urethra the membranous portion of that canal usually first gives way. Besides a case of Mr. Harrison's referred to in the article an instance has been recently given by Dr. Call (THE LANCET, Dec. 10th), in which rupture from the latter cause must have occurred in the lower and back part of the bladder, the gush of urine having taken place through the anus. What part gave way in Mr. Harrison's case is not mentioned.

The second explanation—namely, that there was perforation through a chronic ulcer—appears the more probable

one. If this were the case, the ulcer must of course have been in the anterior wall of the bladder, near the apex; its formation having probably arisen from, or been favoured by, the patient's constitutional (syphilitic) cachexia, co-existing with prolonged severe straining. Adhesions having slowly formed under its influence between the bladder at that part and the abdominal wall, just above the pubes, thus preventing any escape of fluid into the pelvis, a strong effort in micturition must have finally caused the rupture, and the extravasation of urine into the areolar tissue, with the consequences which followed. By the time the sloughs had separated, a wall of lymph having become organised opposite the perforation, further extravasation was prevented. That this view of the occurrence is the right one is strengthened by the light thrown upon it by a case of Mr. Bartleet's, in the General Hospital, Birmingham, an account of which appeared in THE LANCET (vol. i., 1876), of which the following is a brief epitome. The patient, an engineer, aged fifty-three, "had always enjoyed excellent health, and followed his occupation uninterruptedly." On stooping, suddenly and rapidly, to pick up a bar of iron, he was seized with severe pain at the lower part of the abdomen, followed by inability to pass his urine, which had to be drawn off by a catheter, the point of which, being brought into contact with the upper part of the bladder when the handle was depressed, occasioned very acute pain. He died on the eighth day after his first attack, with obscure symptoms of deep-seated peritonitis, the symptoms generally having "appeared to point to an acute strangulation of the intestines," for which the patient was at first carefully examined, rather than to the state of things discovered after death. The autopsy revealed a large quantity of solid lymph matting the organs of the pelvis together, especially between the ileum and bladder, about an inch from its apex; and at this part of the bladder, on its posterior aspect, an ulcer was discovered, exactly resembling chronic gastric ulcer. "The ulcer obviously dated further back than the present illness, and had apparently gone through all its stages without any symptoms, and while the patient continued to follow his accustomed occupation." The act of stooping was considered to have caused a slight laceration in the adhesions between the ileum and bladder, which allowed a little urine to be discharged into the peritoneal cavity. The absence of any symptoms of diseased bladder was remarkable both in this case and in the one I have narrated; the movement to raise the iron bar having been obviously the immediate cause of the "slight laceration" in the one case, and the effort in micturition that of the rupture in the other.

A CASE OF POISONING WITH BELLADONNA.

By HENRY DAVY, M.B. LOND., M.R.C.P.,
PHYSICIAN TO THE DEVON AND EXETER HOSPITAL, ALSO TO THE EXETER DISPENSARY.

J. M—— had been for some time a patient under my care in the Exeter Dispensary, and was taking one ounce of a mixture three times a day, and rubbing belladonna liniment into his joints. At 5 A.M. on Sept. 21st he took a dose of liniment instead of his medicine. There is no means of knowing exactly the amount taken, but it appears to be from half an ounce to an ounce of the liniment, equivalent to from half an ounce to an ounce of the root. He was given salt and water and milk by the friends, but he did not vomit; and at 8 A.M. they sent for me. When seen at 8.20 A.M. he was unconscious, and felt very hot; his face and chest were suffused with a red flush, and his pupils were dilated and would not react to light, although the amount of dilatation was not great. His pulse was 130, and at times very weak; the variation as to strength being more marked than any distinct intermission. When roused he could not recognise anyone nor answer any questions; he stared wildly about him, and uttered a few incoherent remarks. He was at once ordered to the Devon and Exeter Hospital, where he was admitted at 9.15 A.M. By my directions he was at once given a solution of tannic acid and a hypodermic injection of half a grain of morphia, while his stomach was washed out by the house-surgeon, the contents apparently being merely the solution of tannic acid which had been given.

The following notes, made by the house-surgeon (Mr. A. Blomfield) and myself, show the treatment I adopted and the course of the case.

On admission, at 9.15 A.M., the patient did not know where he was, and was very noisy whilst being undressed; he threw his arms about and at intervals jumped up as if seeing something which he wished to get rid of. Pupils dilated; face somewhat injected; tongue and mouth dry; no vomiting. Pulse 130, irregular in strength. Treatment as above. Brandy and milk to be given every quarter of an hour.—11 A.M.: His bladder was found to be very distended and a large quantity of urine was drawn off with a catheter. He is inclined to be drowsy. His pupils appear normal when the eyelids are closed, but become widely dilated when he opens his eyes.—12.30: A quarter of a grain of morphia was injected.—1.5 P.M.: Making noise in his throat and inclined to stupor; but he can easily be roused, though he at once relapses.—3.45: Pulse 120, full and less irregular as to strength; pupils are about normal; breathing rapid, thirty to the minute, and laboured; tongue more natural, but very dry at the tip. Temperature 101·4°. Examined his throat: fauces, uvula, and tonsils much injected, dry, and covered with a small amount of glairy secretion. He can now swallow his milk better, but he has never lost the power of swallowing the few teaspoonfuls which were given him at intervals of a quarter of an hour. He is also sensible and recognises his daughter. I ordered the injections of morphia to be discontinued unless the house-surgeon thought them necessary, with the exception of one to be given in the evening.—7.20 P.M.: Temperature 98°; perspiring; seems better; a quarter of a grain of morphia was injected.—9 P.M.: Sick after a cup of coffee; quiet; perspiring freely.—11 P.M.: Tongue is still dry, the breathing rather laboured with long inspiratory sound; is drowsy; perspires freely. Pupils as at 3.45. Has not passed urine, which was drawn off by catheter. No pain in the stomach but says his arms and hands itch very much. The house-surgeon injected a quarter of a grain of morphia.—4.20 A.M.: On the 22nd the house-surgeon was called to him and found him sitting up in bed vomiting freely. He says "he cannot breathe, as something catches him in the chest." Perspiring freely about the face and extremities; pulse full and quiet; very thirsty; tongue moist at edges. Appears very ill indeed. Ordered linseed poultices to the stomach; a quarter of a grain of morphia was injected.

After this he did very well, and when I saw him at 11 A.M. he was sensible; pupils normal; tongue moist and covered with a white fur; back of throat injected but moist. Has passed urine normally.

In cases of belladonna poisoning, such as this and the one reported in THE LANCET for October 1st, 1881, by Dr. Protheroe Smith, it is necessary to remember that it is uncertain how much of the poison has been taken. This uncertainty prevents us from saying how much of the cure is due to the treatment adopted; and it is necessary also to bear in mind that, according to Guy and Ferrier, in instances of poisoning by belladonna, "the fatal cases bear but a small proportion to cases of recovery." In the present case, however, the symptoms which at 9.20 were so marked had to a great extent passed off by 3.45, after three-quarters of a grain of morphia had been subcutaneously injected; and, although alarming symptoms again recurred, they seemed to be immediately relieved by repetition of the injections. Altogether one grain and a half of morphia were injected subcutaneously within nineteen hours. The patient left the hospital three days after admission, and is now perfectly well. I think that this case very strongly illustrates that morphia is powerfully antagonistic to atropia, and is a very valuable antidote in cases of poisoning by that alkaloid. It is true that the effects of the morphia were not so marked as those of the chloral in the case reported on Oct. 1st, but it is to be noted that in my case no vomiting had taken place, and that the patient did not come under treatment for four and a quarter hours after the poison had been taken. It is fair, therefore, to conclude that all the poison taken had been absorbed, and that probably this was far greater than in the case before referred to.

Southernhay.

THE annual meeting of the Royal Alexandra Hospital for Sick Children, Brighton, was held on Tuesday last, when it was resolved to name one of the wards "The Taaffe," in recognition of the valuable services rendered by the senior physician with respect to the new building.

SUCCESSFUL CASE OF TREPHINING FOR COMPOUND COMMINUTED DEPRESSED FRACTURE OF THE SKULL.

BY ALBERT LEAHY, F.R.C.S.,
SURGICAL REGISTRAR TO CHARING-CROSS HOSPITAL.

WHILST acting as locum tenens for Mr. Johnson Smith, surgeon to the Seamen's Hospital, Greenwich, the following case came under my care.

J. C——, aged twenty-one, an engine-driver, was brought to the hospital on Sept. 9th, with the following history: Whilst attending to the engine one of the cylinders burst, and a piece of iron weighing between four and five hundredweight struck him on the right side of the head, rendering him insensible. On examination, a contused wound about an inch and a half long was found on the side of the scalp, just above and in front of the anterior inferior angle of the right parietal bone. The wound led down to a depressed fracture of the skull; the portion of the outer table, which was depressed, being no larger than a threepenny-piece. The patient was quite sensible, but rather collapsed. He had also a comminuted fracture of the middle third of the right clavicle.

After enlarging the wound in the scalp and more closely examining the fracture, I was led to think that from the small size of the depressed portion of the outer table, the pointed shape of the piece of iron, and the amount of violence with which it must have been driven on to the skull in causing the injury, there was probably extensive splintering of the internal table, and a great chance, if the case were left without operative interference, of the fragments irritating the dura mater, and so causing further mischief. Taking this view of the case, I at once proceeded to trephine him, and, after removing the circular piece of bone, found numerous fragments of the inner table, of various sizes, driven under the inner table, where it was sound, and four small fragments fixed in the dura mater itself, and requiring some little force in their extraction. The edges of the wound in the scalp were brought together with a few sutures, and the wound dressed antiseptically.

Five hours after the operation he was much collapsed. Pulse 50, feeble and intermittent; temperature 98°; respiration normal. A quantity of arterial blood was escaping from the right ear. Sensible, and not in pain.

Sept. 10th.—Passed a restless night, complaining of pain in his right shoulder. Bloody discharge from right ear still continues, but is less in quantity and thinner and more serous. Temperature 102°, pulse 64, regular and full. He is quite sensible, and answers any question put to him. Wound was dressed and looks very well. Has been sick several times. Bowels constipated. Ordered one drop of croton oil immediately and a simple enema.

11th.—Passed a very restless night and was slightly delirious. Is sensible, and complains of pain in the right clavicle. Is thirsty; tongue brown, dry, and rather hard. Pulse 90, regular and full. Pupils normal. Wound dressed again; looks healthy. Sickness has ceased. Temperature: morning, 100·4°; evening, 101°. Bowels freely open.

12th.—During the night he was very delirious and excited; the nurses experienced considerable difficulty in keeping him in bed. He seemed dull and stupid, not answering when spoken to. Pupils contracted. Pulse 80, full and regular; temperature, morning, 101°. Still occasionally sick. Tongue furred, but moist. Ordered to have his head shaved and an ice-bag applied, and to take two grains of subchloride of mercury every four hours.

13th.—Wound dressed again to-day. Looks healthy. Stitches were removed. He passed a fairly good night, sleeping well, and was quite free from pain or sickness. Pulse 80, full and regular, and he seems much better; temperature, morning, 100°; evening, 101·2°.

14th.—Calomel stopped. Passed a good night. Is much more sensible, answering questions quite rationally. Temperature, morning, 101°; evening, 101·4°; pulse 86.

15th.—Was delirious again last night and very violent. Temperature, morning, 98·2°; evening, 102·3. Wound is suppurating, looks well, and bone looks healthy. Antiseptics stopped and carbolic-acid lotion dressing applied. Pulse 86. Pupils normal.

16th.—Ordered twenty grains of bromide of potassium in an ounce of water every four hours. Still very restless and delirious at night. Temperature, morning, 100·3°; evening, 101·4.°

17th.—Was very delirious and excited through the night. Wound looks healthy. Temperature, morning, 100·2°; evening, 102·2°; pulse 80. Pupils normal. Patient is stupid, and has a vacant and expressionless look in his face. Ordered two grains of subchloride of mercury every four hours.

19th.—Passed a much quieter night. Is much more sensible and rational in his answers. Temperature, morning, 100°; evening 101°; pulse 84. Wound is suppurating freely, but looks healthy. He takes plenty of nourishment, and has been ordered six ounces of brandy in the twenty-four hours.

21st.—Much better. Temperature, morning, 98·3°; evening, 101°; pulse 70. Is now quite sensible. The wound looks well. Calomel to be stopped.

25th.—Progressing favourably. Head symptoms have quite disappeared, and wound is healing well. Temperature still shows nocturnal exacerbations of a degree or more.

29th.—He was placed under the care of Mr. Johnson Smith, and he kindly informs me that the patient progressed steadily to recovery as regards the head mischief, but that he developed the symptoms and physical signs of phthisis; that when he left the hospital on Oct. 22nd the wound in the scalp had all but healed, and that though the small sinus still remains he (Mr. Johnson Smith) could not detect any necrosis of the skull.

The lesion in the skull partook more of the characteristics of a punctured fracture, and it was taking this view of the case that led me to trephine him. Had it been left without operation, although from the first there was an absence of symptoms of compression, still, in all probability, considering the condition of the inner table, subcranial suppuration would have ensued, and trephining would then have been necessary under less favourable circumstances.

Warwick-street, Pall-mall.

PROCIDENTIA, COMPLETE RUPTURE OF THE CERVIX UTERI, OCCURRING IN TWIN LABOUR.

BY HENRY LOVE, M.B. UNIV. DUB., L.R.C.S.I.

ON the night of Oct. 15th, 1881, I was called to attend A. B——, who had been in labour for two days. On my arrival the woman herself informed me that her last child had been born five years previously, and since that period she had suffered from the womb coming down (as she described it). She stated that she had undergone a great deal of treatment in hospital for this prolapsus uteri, and had been operated upon. She had been in labour, with slow lingering pains, for two days, and had sent for medical assistance in the hope that something might immediately be done for her, her system becoming much exhausted. On my attempting to ascertain the presentation of the child I discovered an immense tumefied mass protruding from the vagina, which mass was made up of four irregularly shaped masses. With some difficulty I found what was the os uteri, a small opening amidst these tumefactions only admitting the first two fingers with considerable trouble. I could not detect any presentation whatever, nor indeed the membranes themselves, even while the woman had a "pain," but the passage inside was well dilated. Directing my attention to the condition of the prolapse, I found I could sweep my finger, with a little manipulation, around this mass, both posteriorly and laterally. When my finger arrived at the root, so to speak, of the anterior mass, or in what might be called the anterior cul-de-sac, its further progress was arrested by the largest of the four tumours, which I took to be the bladder in a prolapsed condition.

Having ascertained all the particulars of the case, and finding an os utterly incapable of dilatation, and further, that the uterine contractions could not, or did not, in the slightest degree affect the passage as far up as my finger would reach, I decided upon trying to reduce the prolapse, a proceeding of very great difficulty, owing to the size and tumefied condition of the protrusion. I had not a Barnes' bag, nor any available means of dilating the os, so I

proceeded first to reduce the anterior tumour (or that which I took to be the bladder) by laying the left hand evenly over the mass. With some delay, difficulty, and pain to the patient, I returned it within the vagina, the action being followed by the patient micturating: I then passed the right hand into the vagina, with its back pressed firmly against the reduced tumour, and with the left hand (now free) in a similar manner I reduced the remaining tumours within the vaginal passage, keeping my left hand, shaped as a cone, against the os uteri itself. The reduction of the prolapse, though giving rise to much suffering at the time, was followed by a sense of relief to the woman. I then commenced an attempt at artificially dilating the os with the cone-shaped hand, and for four hours maintained constant considerable pressure upwards, endeavouring all the while to divaricate the fingers more and more. This operation, conducted by alternating from one hand to the other, was very tiresome and tedious; but the result after two hours was encouraging, inasmuch as by that time I could get four fingers through the os, which before had barely admitted two. At the end of four hours I found the os would not dilate any more, even to admit of the thumb, but remained as rigid as if it were a piece of leather. I had, however, by this time induced much dilatation, and by the reduction of the prolapse been enabled to feel the presenting head of the child resting on the pubes' brim, the face looking towards the left cotyloid region. In this way I watched the progress of the case for some time, never removing the hand from the vagina, becoming convinced that nature unaided would not terminate the case, even had the os been fully dilated, the uterine contractions barely making the membranes tense. At intervals of every twenty minutes for three hours I administered drachm doses of ergot without the slightest effect, when I decided to rupture the membranes, hoping the escape of the liquor amnii would cause increased and powerful uterine contraction. There appeared to be two distinct membranous bags with a sulcus between them, in which the presenting head could be felt. I succeeded with a long quill in rupturing one of these, whereupon the liquor amnii gushed out in immense quantities. This, however, brought no result; and I was surprised to find a membrane still intact and with fluid inside. I again opened into it, causing a further discharge of liquor amnii; my finger then coming in contact with the head of the child. Uterine action was in no degree increased; and finding the head hitched on the brim, I determined to use the forceps (here I may mention that the dilated os just admitted the blade). Having applied the blades accurately, I made traction in the usual way, and brought the head down to the os, pausing to allow nature to make an expulsive effort, which she did, bringing the os and cervix uteri (elongated to a full finger's length) into the world, but not expelling the head; upon which I again made gentle traction, which being increased, gave birth to the head, with complete rupture of the elongated cervix. The remaining part of the child was born in the usual way. I replaced the os and lacerated cervix in examining for the placentæ, when I came upon the presenting head of a second child, which was born without any interference on my part; the placenta (one) was expelled by grasping the fundus firmly through the abdominal wall, and making traction upon the two cords. The hæmorrhage, though considerable, did not alarm me, but I felt not a little uneasy at the immense size still maintained by the uterus, quite large enough to hold a third child equal in size to either of the twins. I may, in conclusion, mention that the uterus still remains that abnormal size, clearly indicating the want of contractility of its muscular fibres, and pointing to the cause of the tedious labour. The perinæum was uninjured; but the entire length (four and a half to five inches) of this muscular passage (the cervix uteri) protruding from the vagina was slit up, that the head might pass through the os, which being dilated to its utmost capacity, would not allow a greater body than an egg to pass through. The general condition of the patient, mentally and physically, under this trying ordeal was remarkably good; at present she is enjoying good health, and wearing a pad, adjusted for the purpose of retaining the prolapse within the vagina. One of the children (the first) has since died, and the other is doing remarkably well.

Very briefly this woman's account of her previous history is as follows:—

A. B——, aged thirty-three, married fifteen years; in her first labour she was delivered by forceps; six months later she had a miscarriage, from which time the womb began to drop a little. Eighteen months later she had a second child (labour natural), after which she had a second miscarriage, and a premature labour. From this time the womb dropped so badly that she went into a London hospital, where the edges of the perinæum were cut, and brought together with sutures. In about four weeks she returned home, the womb coming down as much as ever. She then went as out-patient to the Samaritan Hospital, where astringent injections were administered, and a pessary (Greenhalgh's) ordered to be worn. She continued as out-patient for two years, during which period she had another child, her labour being very bad. From that time until the present confinement (more than five years) she has gone steadily from bad to worse, the womb dropping more and more, and the protrusion becoming much larger. She has worn the pessary as much as possible, but her condition during the latter months of this twin pregnancy forbad its use, and has been one of great distress, pain, and suffering.

Mitcham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

SMALL EPULIS ATTENDED WITH PROFUSE HÆMORRHAGES.

(Under the care of Mr. J. W. HULKE.)

A LITTLE blonde machinist, aged sixteen, with wax-like pallor, and scarcely able to stand without support, was admitted into Queen's ward on the night of July 29th, 1880, on account of very profuse hæmorrhages from the mouth. Their source was a small epulis of the size of a Spanish nut, springing from the interior plates of the alveolar process opposite the right first molar tooth. The girl said that this had begun to grow three years before, soon after she had had an upper double tooth removed at the Dental Hospital. Until this uncontrollable bleeding, which obliged her to come to the hospital, she had not attached any importance to the lump, particularly as it occasioned her but little inconvenience. This molar was drawn, the epulis cut away, and the bone to which it was attached was gouged out. Bleeding, which was somewhat copious, was checked by a compress dusted with powdered persulphate of iron. The wound healed in about a fortnight, by which time she had begun to lose her pallor. A few months since there was no appearance of a recurrence. The anatomical structure of the tumour placed it in the class of fibro-sarcoma.

VERY LARGE MYXOMA IN THE LOINS; REMOVAL; RECOVERY.

(Under the care of Mr. J. W. HULKE.)

A warehouseman, twenty-five years old, in good health, was admitted into Pepys' ward on Oct. 7th, 1880, with a tumour in the loins, which he had first noticed about eighteen months previously, at which time it was of about the size of a hen's egg. Its increase was at first slow, but latterly more rapid, particularly since it was twice tapped, under the impression that it was a cold abscess. It had an even subglobular figure, with slightly constricted base six inches across. Its summit, which rose four inches above the level of the surface wound, was chafed by the pressure of his dress, and here, but nowhere else, the skin was adherent. The mass was distinctly movable upon the underlying erectores spinæ and the vertebral spines. By some it was thought to fluctuate, so very soft was its consistence. Being regarded as probably a myxoma, the tumour was excised on Oct. 13th. Its only firm deep connexion was a small spot over the right erector spinæ. The wound healed by granulation, and on Nov. 7th the man returned to Wales. A short time ago he was reported as

continuing well. When cut through the tumour had a translucent pink tint; its consistence was that of firm jelly; and its structure indicative of myxoma.

RADCLIFFE INFIRMARY, OXFORD.

PELVIC ABSCESS; SUDDEN ONSET OF RIGHT HEMIPLEGIA, APHASIA AND RIGHT HEMISPASM; ENDOCARDITIS; PLEURISY; DEATH.

(Under the care of Dr. TUCKWELL.)

FOR the notes of this interesting case we are indebted to Mr. J. E. Hine, resident medical officer to the infirmary.

S. A——, aged twenty, was admitted into the infirmary on January 4th, 1881. The patient was a servant, unmarried. The illness began four weeks before with sudden pain in the right iliac region, thence extending over the whole abdomen. She had no rigors. At the end of three days the severe pain abated, but returned in a week and was then situated chiefly in the middle of the back. The pain again abated, and again returned ten days before admission, when it lasted all day; but it did not recur. The abdomen had, however, remained tender. During the whole of this time the patient had vomited after taking food. The bowels were regular as a rule, but there had been at times a little diarrhœa. Menstruation had stopped a week before her illness began, and did not appear afterwards. A fortnight ago an offensive vaginal discharge commenced, not excessive in quantity. She had had no pain on micturition or defecation.

On admission the patient was very emaciated. Skin dry and harsh; tongue red; epithelium in parts stripped off; small aphthous patches in the dorsum; pulse 120. There was a frequent short cough with purulent expectoration. In the right iliac fossa, limited below by Poupart's ligament, was a deep-seated, non-fluctuating swelling, over which the percussion-note was tympanitic; but there was no tenderness on moderately deep pressure over the swelling, or, indeed, over any part of the abdomen. A very offensive purulent discharge, enough to soil one cloth in the day, escaped from the vagina.—Vaginal examination: Cervix uteri small and virginal. In posterior cul-de-sac a doughy swelling was felt, which partly concealed the posterior half of the cervix.

January 9th: She vomited yesterday afternoon and this morning. Her cough is troublesome. In the right scapular region there is prolonged expiration, but nothing else to be detected in the chest. The vaginal discharge continued till the 26th, when the swelling in the abdomen was no longer to be felt. The vomiting had also continued, sometimes after, sometimes independently of, food, and usually without any feeling of nausea.

February 11th: The body is very emaciated. Pulse very frequent, seldom below 120; tongue foul. The vomiting continues, the vomited matters being always green and bilious looking. In the right supra-scapular and scapular region the resonance is a little short, and bronchial breath sounds and bronchophony are heard on auscultation.—18th: She had been very sick all night. Last evening she became partially collapsed, and complained of pain at the epigastrium. She has since wandered a little. She now lies on the right side. Pupils dilated. Pulse 140; and very weak. Expression of face vacant. She talks nonsense. Moves both hands and feet.—19th: To-day there is distinct right-sided facial paralysis. The tongue deviates to the right. Both pupils are dilated and react feebly to light. The right arm seems completely paralysed. The right leg is apparently not paralysed, but when the knee is flexed, she cries out as if in pain and draws both her legs up. There is no rigidity of the muscles. When spoken to she answers "yes" to every question, and makes use of no other words. The breathing is quiet. Tâches cérébrales very marked.—22nd: There seems to be some loss of power in the right leg. The feet and legs feel cold. She understands what is said to her, but now answers "Why, Sir?" to all questions. Vomiting frequent.—23rd (10 P.M.): She had become worse. Temperature 101°; pulse 168; respiration 20; deep and sighing. Pupils widely dilated; right eye squinting outwards. The same evening, and at intervals of about ten minutes all through the night, she had a series of convulsive attacks. The following was the sequence of events in each attack: (1) The eyes turned to the right and remained so fixed for a few seconds; they then oscillated rapidly to and fro. (2) The right side of the face began to twitch, the right corner of the mouth being much drawn up, and the mouth rapidly opened and shut. (3) The right arm was thrown into a state of rapid clonic spasm. (4) The right leg was similarly convulsed. (5) Both legs and the whole body became convulsed. (6) There then followed several deep inspirations, and the whole was at an end, having lasted about three minutes. Between the attacks she moved her limbs and ground her teeth.—24th: The convulsive attacks had continued every ten or fifteen minutes till 12.30 to-day; they then ceased till 8.30 P.M., when she had one, which was the last. After this she seemed better, breathing quietly, and she slept well during the night. She had, however, some difficulty in swallowing, the milk that was given her flowing back out of the mouth.—25th: She has been able to take half a pint of milk during the night. She moves both legs, but still seems to have pain when the left is flexed. The right hand and arm are paralysed as before, but the facial paralysis is not so marked. She now seems quite conscious. The pupils are no longer dilated. Ophthalmoscopic examination shows nothing abnormal.—26th: To-day she can hold the right hand up in the air and move it about almost as well as the left. The vomiting had returned in the night, and she had passed her motions under her. A short systolic murmur is heard at the apex for the first time.—28th: The cardiac murmur is more distinct.

March 2nd: She still passes everything under her. Has more power in the right hand, and can flex and extend both wrist and elbow. She can draw both legs up; but cannot raise either foot from the bed. The facial paralysis is gone. When spoken to she answers "yes" and "no," sometimes rationally, sometimes at random. She understands all that is said to her.—4th: She speaks better, and can tell her name.—9th: She speaks quite well. The mitral murmur is very loud. There is a slight return of the vaginal discharge.—12th: She complains of shortness of breath and cough. Expectoration rather profuse. There is now dulness on percussion, and absence of breath sounds from the right scapula to the base. The vaginal discharge is more abundant and offensive. No more vomiting. The patient was removed by request to her own home to-day, and died two days afterwards. The temperature throughout her illness was only once as high as 101°, ranging on an average from 98·4° to 99·4°. The urine was free from albumen.

Remarks by Dr. TUCKWELL.—Although, unfortunately, the girl was taken away by her friends, and no examination of the body could be obtained; yet, a guess may be made at the probable causes of her symptoms as they successively showed themselves. An inflammation, perhaps a partial perforation, of the vermiform appendix suddenly occurs. Under rest in bed the acute symptoms subside, but there is only temporary relief. An abscess forms in the connective tissue behind the cæcum, finds its way down into the vagina, bursts, and discharges a very offensive pus. There follow purulent absorption and pyæmic endocarditis. A vegetation from the inflamed mitral valve is swept outwards, and carried into the left middle cerebral artery, causing right hemiplegia and aphasia, followed by right hemispasm and general convulsions. From these cerebral symptoms she soon recovers. Right-sided pleurisy, with rapid effusion, now sets in, and terminates life. At the onset of the cerebral symptoms it was suspected that a secondary abscess had formed in the neighbourhood of the inferior frontal convolution, more especially as the mitral murmur was not heard till two or three days afterwards, when the paralysis was beginning to subside. But the steady recovery of speech and movement, the absence of any marked rise in the temperature, and the development of a loud mitral murmur, seemed rather to point to embolism as the cause of this train of symptoms.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

HÆMATOCELE; OPERATION; CURE.

(Under the care of Mr. BERRY).

FOR the following notes we are indebted to Dr. Lytle, senior house-surgeon:—

P. S——, aged forty-five years, labourer, admitted July 9th, 1881. He was first seen in the out-patient department with a large pyriform, smooth, elastic swelling on left side of the scrotum, resembling hydrocele. A small trocar was inserted, and a little fluid blood escaped. The

patient stated that he first noticed the swelling two years before, after returning from work, and it gradually got larger. At the time of admission he had no pain, but the size and weight of tumour interfered with him whilst working. He positively asserted that he had never received any injury to the testicle. On examining the tumour more carefully it was found to be uniformly tense and smooth throughout, filling the left scrotum; there was no impulse on coughing, and it was not translucent. The testicle could be made out behind the tumour by the characteristic pain on pressure, the tumour itself not being painful on pressing it.

On July 14th chloroform was administered, and an incision made into the tumour, about three inches in length, along the anterior surface; the tunica vaginalis was found very much thickened, a number of clots and a cyst were turned out, and the cavity was washed with carbolic solution and plugged with lint from the bottom. There was a good deal of discharge for about ten days, and the lint plugs soaked in carbolic oil were changed daily. The swelling gradually subsided, and red lotion was used to complete the healing process. He was discharged on the 28th with the wound almost entirely healed.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Mediastinal Emphysema and Pneumothorax in connexion with Tracheotomy.—Cardiac Murmurs in the Puerperal State.

THE ordinary meeting of this Society was held on Feb. 28th, Dr. A. W. Barclay, President, in the chair.

A paper was communicated by Dr. F. H. CHAMPNEYS, of which the following is an abstract, entitled, "Mediastinal Emphysema and Pneumothorax in connexion with Tracheotomy: an Experimental Inquiry" (third communication on artificial respiration in stillborn children). The observations were made on twenty-six stillborn children who had never breathed, the subjects of experiments with regard to artificial respiration (Med.-Chir. Trans., vol. lxiv., 1881). The method of experiment consisted in connecting a tube filled with water, by means of a flexible tube, to a cannula tied into the trachea, and using the various manipulative methods of artificial respiration. In one case the tube was filled with mercury. A table is given, showing the methods employed, the maximum inspiratory effect produced (in inches of water measured in the V-tube), and the autopsy. The subjects available for the inquiry were twenty-one in number. Mediastinal emphysema occurred in seven, or one-third of the whole number. Pneumothorax occurred in five out of these seven cases, but in no other. In three cases it was found in the right pleural sac, in one in the left, and in one in both. In no case did the rupture occur in the better expanded side of the chest. Coloured injection was found to be drawn from the region of the wound down to the trachea (left unopened), into the anterior mediastinum. The explanation offered is, that in case of obstruction of the air-passages (as by the weight of a column of fluid) the air follows the route of least resistance. If rupture occurs from the mediastinum into the pleural sac the less expanded side is usually chosen. It is, however, pointed out that a thickened pleura overlying a less expanded lung might determine rupture into the other or better expanded pleura. Mediastinal emphysema was shown to have specially followed Schultze's method of artificial respiration, which is sudden in its action. Reference is made to autopsies after tracheotomy at St. Bartholomew's and the Children's Hospitals. Pneumothorax is shown to be a secondary consequence of mediastinal emphysema. Emphysema of the neck is shown to be due to opposite conditions; but these observations probably explain its occurrence during labour. *Practical conclusions:* (1) Emphysema of the anterior mediastinum occurs in a certain number of tracheotomies. (2) It is often associated with pneumothorax, to which it stands in causal relation, and pneumothorax may be the cause of death after tracheotomy. (3) The air is most likely to burst into that pleura of which the lung is the less expanded. On the other hand, pneumothorax, of course, helps to collapse the lung. (4) The route selected by the air is the space beneath the deep cervical fascia. (5) Emphysema of the anterior mediastinum may or may not be associated with emphysema of the neck; but their causes are different, and the conditions of their production are opposite. (6) The conditions favouring the production of mediastinal emphysema are division of the deep cervical fascia, obstruction to the air passages, and inspiratory efforts. (7) The dangerous period during tracheotomy is the interval between the division of the deep cervical fascia and the efficient introduction of the tube. (8) The deep cervical fascia should, on no account, be raised from the trachea, the incision in it should not be longer than necessary in the direction of the sternum, and this should be particularly remembered during inspiratory efforts. (9) It will probably be found that the frequency of occurrence of emphysema of the anterior mediastinum depends much on the skill of the operator, especially in inserting the tube. (10) If artificial respiration should prove necessary, the tissues should be kept in apposition with the trachea, and any manipulations performed steadily and without jerks. (11) Schultze's method (which is otherwise unsuitable for the above purpose) is especially prone to produce emphysema of the anterior mediastinum. (12) These observations illustrate the fact that, apart from the question of tracheotomy, the inspiratory force of the thorax should be remembered in all operations near the root of the neck, and in the case of all collections of pus beneath the deep cervical fascia. In these cases quiet respiration is essential for the safety of the patient, and vomiting, which begins with a sudden inspiration, is dangerous. (13) These observations may serve to illustrate the production of emphysema of the neck &c. during labour.—Dr. MATTHEWS DUNCAN expressed his great appreciation of the paper, which was an example of practical fruits in a surgical direction arising in the course of an experimental inquiry upon artificial respiration in the newborn. The author had also explained the emphysema of the neck occurring sometimes in women during labour. There was, however, another form of emphysema about the groins which still required explanation.—Mr. WARRINGTON HAWARD said there could be no doubt of the value of Dr. Champneys' observations to surgeons, particularly as to the precautions necessary in tracheotomy, and the need for early evacuation of pus burrowing beneath the cervical fascia. He had seen recently emphysema occur at the root of the neck during violent parturition, and explained it by the increased tension of the air in the lungs during the effort (the glottis being closed), which led to some rupture; but he could not make out why pneumothorax did not occur at the same time.—Dr. R. THOMPSON mentioned a case where, with a pneumothorax already established on one side, fresh perforation of the lung took place into the mediastinum, and thence into the opposite pleura.—The PRESIDENT asked the author how he associated the form of emphysema in parturient women with that of tracheotomy.—Dr. CHAMPNEYS, in reply, said that his views about the emphysema of parturient women were purely speculative. The emphysema in them arose first in the mediastinum, and thence extended to the neck, the reverse taking place in tracheotomy. He suggested that the upper part of the lung lying behind the supra sternal notch, being the least supported of any, might in such cases be the seat of a small rupture.

A paper was then read by Dr. ANGEL MONEY (communicated by Dr. JOHN WILLIAMS) on the "Great Frequency of Cardiac Murmurs in the Puerperal State." The observations were made last year (February to end of July) on 111 consecutive cases. Murmurs were heard in 84 cases, or about 75 per cent. The great majority of the murmurs were situate over the right heart. There were two cases of undoubted structural disease. The remaining great bulk of the murmurs are here dealt with. The patients who possessed a murmur for the most part did not suffer from symptoms referable to the heart. The time of the murmurs was invariably systolic. The murmurs are divided into three sorts. The first (resembling an ordinary endocardial murmur) was most numerous; was of blowing character, soft, usually low or medium-pitched, fairly long and heard with almost every cardiac beat, and presented but little variation during the course of its existence. The number of these was 51; 36 were loudest over the tricuspid area, 8 over the mitral area, 6 over the pulmonary, and 1 over the aortic. By tricuspid area is meant the fourth left space, just a little to the left of left edge of sternum, there or thereabouts. The murmur was conducted to a variable extent. The

duration of the murmur was variable. Most commonly the murmur was first heard a day or so after delivery. The mechanism of the murmur is discussed. The most novel and interesting, the "tricuspid" murmur, is believed not to be due to tricuspid regurgitation. No definite conclusion is come to as to the mode of production. The second kind (friction-like) was almost absolutely non-conducted, was heard over a very small area just above and to left of ensiform cartilage. The murmur seemed superficial, was high pitched and stiff in quality; was not audible with every cardiac beat. This sort was heard twenty-nine times. The mechanism is probably exocardial friction. Its site would about correspond to the white patch which may be seen on the front of the right ventricle. The third kind of murmur, the least numerous, the most capricious, was remarkable for its loudness, was very inconstant—i.e., not heard with every cardiac beat, and was very transitory; its area of audition was remarkably limited; it was most frequently heard over one or other base of the heart; it commonly went with an excited action of the heart associated with pyrexia or mental emotion. Besides pyrexia, excitement, and anæmia, this murmur was sometimes associated with râles in the chest and with a cough, but no sputa. The quality of the sound varied. In many cases it resembled the sound evolved when a piece of silk tightly stretched is scratched with the nail; or like the sound heard when pressure is made on the carotid in anæmic cases. Sometimes the sibilant râle was almost exactly imitated. The murmur was in all cases heard when the breathing was stopped. The mechanism of this murmur is discussed. The murmur was heard sixteen times. The mode of generation of murmurs is regarded as very puzzling. All the murmurs of the second and third kinds, and the majority of the first kind, were temporary phenomena. Murmurs in the puerperal state are (for the most part) not indicative of the appearance of serious cardiac lesions. It came out, as the result of observation, that the first cardiac sound was relatively loud over the right heart, that the pulmonary second sound was markedly accentuated, that the sensation communicated to the stethoscope was stronger than natural over the right heart. It was, and is, inferred that the right heart acts robustly during the puerperal state, and that the tension in the pulmonary artery is increased. Which of these factors precedes the other, or whether they appear simultaneously, is not answered. Attention was directed in every case to the occurrence of rheumatism in any shape; also to the quality of the blood, to the urine, body heat, age, civil state, and number of pregnancies. As a broad statement it can be said that such observations are of negative value in the question of the mechanism of the murmurs. The murmurs explain, or are to be explained by, the normal cardiac and circulatory conditions which are believed to exist during the puerperal state. These conditions have been mentioned in the last paragraph but one.—Dr. JOHN WILLIAMS had verified Dr. Money's observations in a large number of cases, and testified to the author's care in selecting only cases where the murmur was well defined. The murmurs were curious and remarkably frequent, being almost a physiological phenomenon. They are not explicable in the ordinary accepted views of the mechanism of heart murmurs, nor was there any evidence that they were regurgitant. Those heard in the fourth left interspace were so limited and superficial, and often double, that they were almost certainly exocardial. The great value of the paper was to demonstrate that murmurs when present in the puerperal state did not signify any condition to cause apprehension on the part of the medical attendant.—Dr. MATTHEWS DUNCAN had long been aware of the occurrence of transient systolic bruits in pregnant women, and enumerated several authors who had written on the subject. Dr. Money's inquiry, however, was by far the most complete of any. Cases of puerperal endocarditis, generally produced other and graver symptoms, and were not likely to be mistaken.—Dr. FINLAY said that a point of some interest which did not seem to have been touched in the paper was the effect which change of posture had upon these puerperal murmurs. A case had lately come under his notice in which a soft systolic murmur was audible over the whole præcordia, and in addition a loud, musical systolic murmur over the aortic cartilage and the second right interspace and the adjacent part of the sternum. These murmurs became almost inappreciable when the patient turned to either side, and disappeared completely when she sat upright. He should be glad to hear whether the effect of change of posture had been noted in the cases which formed the basis of the paper.—Dr. MATTHEWS DUNCAN said that some of the older authors distinctly mentioned that the murmurs were influenced by position.—Dr. R. THOMPSON hoped that Dr. Money would supplement his paper with observations on the pulse.—Dr. CHAMPNEYS, who had seen many of the cases referred to in the paper, agreed that the localised murmur was exocardial. He suggested that the return of the thorax, after parturition, to its usual shape might have some influence in producing the bruit.—The PRESIDENT asked whether there was a murmur in the carotid arteries indicating some change in the blood? He had long thought that this anæmic cardiac bruit was produced not at the apertures, but within the cavities, by the churning of the blood among the chordæ tendineæ, and that its variable seat was due to the changing relations of the overlapping lung.—Dr. MONEY, in reply, said that murmurs generated in the carotids were not of much importance seeing that they were heard loudly often in perfectly healthy individuals.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Lupus.—Favus.—Head of Grass discharged through Chest.—Pneumothorax.—Sclerotomy.

THE ordinary meeting of the Clinical Society was held on Friday, Feb. 24th, James Lister, F.R.S., President, in the chair. Three interesting communications were read and discussed, and in addition some living specimens were shown in the ante-room—a case of lupus of the forehead treated by erasion and linear scarification, by Mr. R. Squire; a case of favus, by Dr. Crocker, and a case of amputation through the shoulder-joint for epitheliomatous disease, which will form the subject of a paper to be read by Mr. Lawson at the next meeting. The committee appointed to examine Dr. Finlay's case of aortic aneurism, discussed at the last meeting, presented its report, which was to the effect that the disease was sacculated aneurism of the ascending aorta, with a certain amount of regurgitation through the aortic orifice.

Mr. R. J. GODLEE read the notes of a case occurring in the practice of Dr. Rudyard of Watford, in which a child two years old had swallowed an ear of rye-grass, which had made its exit through a small opening in the back, on the left side between the sixth and seventh ribs, three inches from the spine. The grass was shown at the meeting. The patient had suffered in the meantime from cough, but as the grass was supposed to have passed by the bowels the two facts were not connected in the mind of the mother. The time between the swallowing and the extraction of the piece of grass was altogether forty-three days. Mr. Godlee thought that the grass had probably entered the œsophagus and not the trachea, and that the cough depended upon some little pleurisy. Reference was also made to a case, the notes of which were supplied by Mr. R. W. Parker, of a child who swallowed a piece of grass which made its emergence through an abscess which was set up in the left side, the contents of which had a distinct fæcal odour. The analogy between these cases and those of needle swallowing was pointed out, and a case of the latter was referred to in which a large number of needles had been found by Mr. Godlee post mortem in various parts of the abdomen, but which had excited little or no inflammation.—Mr. GOLDING BIRD mentioned that some years ago an ear of ryegrass covered with pus was brought to him by a friend. It had been swallowed by a girl eight years of age, who for nearly a year afterwards was ill and appeared to be suffering from phthisis; an abscess under the left breast formed, and the ear of grass was discharged from it. The girl ultimately recovered.

Dr. G. JOHNSON communicated a case of Acute Perforative Pneumothorax terminating in complete recovery. A schoolboy, aged fifteen, on November 2nd ran in a paper chase about twenty miles and was so fatigued that he fell down exhausted. The two following days he was quite well, but on November 5th after running upstairs he was suddenly seized with pain in the left side, urgent dyspnœa and great prostration, and he was sent to bed. In four or five hours the distressing symptoms had ceased, but on the following day Mr. Wharton of Gosport found all the physical signs of pneumothorax. He was removed home to Wool-

wich on November 14th, and seen by Dr. Johnson next day in consultation with Surgeon-Major Godwin. Although in bed, he declared himself quite well. Pulse 60; respiration 24; temperature 97°. The left side of the chest was nearly motionless and hyper-resonant everywhere except in the interscapular region, where it was slightly duller than at the corresponding point on the right side; over this point there was a feeble respiratory murmur, but elsewhere over the whole left side there was distinct amphoric blowing with occasional metallic tinkling and amphoric echo of the voice and cough. There was no evidence of fluid in the pleura, no dulness at the base, or splashing succussion sound. The heart was felt and heard beating to the right of the sternum. With rest in bed and simple diet the physical signs gradually changed. On November 27th Dr. Godwin reported some movement on the left side, cessation of amphoric blowing and metallic tinkling, some respiratory murmur on the left of the spine, and heart's impulse to left of sternum; general health excellent. On December 23rd Drs. Godwin and Stevenson jointly found vesicular murmur over the whole left side and the heart in its normal position. On January 4th he was seen by Dr. Johnson, who found that the only apparent difference between the two sides of the chest was a doubtful flattening and diminished respiratory movement in the left subclavian region. He had since gone back to school, and Mr. Wharton writes, "So far as I can determine, he has perfectly recovered of his pneumothorax." In explanation of the perforated pleura, it was stated that two years ago he had a chronic cough, and it is suggested that as a result of some structural change in the apex of the left lung the pleural surfaces had become adherent, and then the adhesions were stretched and torn by the violent exertion so as to cause a rent in the pleura. Then, as there was no purulent or other morbid secretion which, by escaping into the cavity of the pleura, would excite inflammation and empyema, the ruptured pleura was soon repaired, and the air was gradually absorbed, the lung again expanded and the heart resumed its normal position. Reference was made to a case published by Dr. Stephen Mackenzie in THE LANCET, 1872, vol. ii. A man, aged fifty, had sudden pneumothorax resulting from the rupture of an emphysematous air vesicle. The air was drawn off by an aspirator, and the patient made a rapid recovery. Three cases of recovery from simple pneumothorax have also been recorded by Dr. Wilks (*British Medical Journal*, 1874, vol. ii.) In none of these three cases was any operation performed.—Dr. DOUGLAS POWELL thought the case of very great interest from the point of view of the physical signs, for a loud amphoric breath sound was heard, although the aperture in the lung must have been very small; this he thought was uncommon. The question arose whether the amphoric sound was due to a modification of the normal breath sound by a large air cavity, or to the to-and-fro rush of air into the pleura. He had recently seen a case of a greatly distended stomach, over the area of which most typical amphoric breath sound was heard. He should like to know Dr. G. Johnson's view on this point. He quite agreed that some cases of phthisical pneumothorax did not recover, because they occurred so late in the disease. In some cases, where the pneumothorax occurs on the more diseased side, it has seemed to retard the lung mischief, and to prolong life. In many cases the effusion following pneumothorax has also exerted a favourable influence on a previously affected lung.—Dr. F. TAYLOR had had a case of pneumothorax recover under his care. In 1875, he said, a man about twenty years old came to him with pain in the side, and a friction rub was heard. He then had pneumonia, and convalesced; but got worse, and had great dyspnœa and pyrexia; the heart was displaced to the right; the cardiac area resonant; dulness at base behind, and evidence of fluid in left pleura. Next day the fluid was found to shift its area; and hyper-resonance above proved that he had hydro-pneumothorax. His symptoms gradually improved, and he completely recovered. As far as was known, he was quite healthy before this attack; but he may have had some prior tubercular disease, as he had since then had some lung trouble. Pneumothorax originating in an acute pneumonia was an unrecognised occurrence.—Mr. PEARCE GOULD mentioned a case of pneumothorax occurring in a boy who had been run over. When seen the lad was in great distress, breathing sixty per minute, the left pleura evidently full of air; no broken rib. The pleura was tapped; air issued with a loud hissing noise, and was followed by a few drops of blood. The lung partly expanded at once, no air accumulated again; and in a week the chest had quite regained its original condition. This case was published in THE LANCET "Mirror," 1881, vol. ii.—Mr. H. MARSH mentioned the case of a man who was under the care of Mr. Thomas Smith. He had been run over, and was in a state of extreme dyspnœa, with left pneumothorax. His condition was very urgent. A large hydrocele trocar was passed into the chest, and a puff of air came out; but the air reaccumulated, and he was tapped again, but died. On post-mortem the lung was found torn quite away from the left bronchus. Another case occurred in a woman who fell with her back on the step of an omnibus. She had left pneumothorax and died. She had no fractured rib. Dr. S. Taylor had also recorded a case of rupture of the lung without fracture of the ribs.—Dr. TYSON referred to a case of a woman, aged sixty, with a large ulcer of the leg of thirty years' standing. He ordered her to lie up, but after a week she was taken ill and died from pyæmia and right pneumothorax.—Dr. COUPLAND thought this case was one of pyæmic abscess of the lung rupturing into the pleura. A case occurred in the Middlesex Hospital under his care of a young man, a banker's clerk, who was suddenly, and not after exertion, attacked with urgent dyspnœa. The right side of the chest was found full of air. After simply resting in bed for two or three weeks the lung re-expanded; signs of effusion were met with meanwhile. The year before a young woman between twenty and thirty years old suddenly had the symptoms and signs of pneumothorax developed. She was previously healthy, but with a family history of tubercle. Fluid was effused into the pleura. She was tapped; it became purulent, and the woman died. No doubt the perforation was due to early tubercle. It was important to know how many such cases of early tubercular ulceration into the pleura got well.—Mr. LISTER asked if the amphoric sound was heard with both inspiration and expiration.—Dr. JOHNSON: Yes.—Mr. LISTER said the case reminded him of cases of fractured ribs in which, if the wound in the costal pleura healed, grave, or even fatal, pneumothorax occurs. If a piece of lung be taken, and a glass tube tied into a bronchus, and that connected with a syringe full of air, and if a free incision be then made in the lung substance and the piston and syringe depressed, the air passes into the wound of the lung very readily; but if now the attempt to raise the piston be made, it is found to be impossible to do it without great force, and if the force be removed the piston flies back again. This shows that the wound of a lung is a valved opening letting air pass out but not in. In this case, as the amphoric sound occurred in both inspiration and expiration, it must have been caused by the rush of air through the opening.—Dr. G. JOHNSON said that he thought the amphoric blowing was due to the passage of air into a large hollow cavity, for when the opening in the lung heals up this sound disappears. In one case he had been able to demonstrate this cause of the cessation of the blowing sound. It was a case of chronic empyema, which was tapped, and amphoric blowing was then produced by the air passing into the chest through the aperture in the chest wall, it could be stopped by the finger placed over the wound. As to the influence of pleurisy or pneumothorax upon phthisis, he thought much depended upon the kind of lung disease. Purulent secretion passing into the pleura, and setting up suppuration, hastened the end. No doubt at each expiration some air passes out of the pleural cavity, or if not, he thought that cavity would be far more distended than it usually is; the force displacing the mediastinum would seem to be an exact measure of the elastic resiliency of the lung.

Mr. SPENCER WATSON related the sequel to a case of Eyeball Tension reported to the Society in 1880. The right eye had been sclerotomised five years ago, and in 1880 the result was reported to be perfectly satisfactory. Premonitory symptoms of tension in the right globe were then showing themselves, and in June, 1881, Mr. Watson operated by sclerotomy on this eye also. The result was tolerably good, but not so good as on the other side. The use of eserine before and after the operation had been very advantageous. There was a slight contraction of the palmar fascia in this patient, and Mr. Watson, having observed the same condition in other cases of glaucoma, was inclined to regard the concurrence of the two conditions as throwing some light on the pathology of glaucoma, and as indicating that an atrophic hardening of the sclerotic coat, of the same kind as the shrinking of the palmar fascia, might be the initial stage of the disorder. Further proof of this, however, was necessary before

the theory could be accepted as proved.—Mr. G. LAWSON had several times tried sclerotomy, but he had not been led to prefer it to iridectomy, as the iris so often became entangled; its benefit was not larger than after iridectomy, and its risks were greater. No operation in surgery was of greater value than iridectomy in acute glaucoma; in chronic glaucoma neither iridectomy nor sclerotomy did much good.—Mr. MCHARDY said this question had been well debated at the International Congress. He preferred iridectomy in any case of acute glaucoma. But in chronic glaucoma was not there less risk in sclerotomy than in iridectomy? He had seen some cases in which eyes had been saved by sclerotomy where the fellow eye had not been saved by iridectomy, but iridectomy had usually been done on the more diseased eye. He had recently seen a man, aged twenty-nine, with chronic glaucoma in both eyes, almost complete blindness in the right eye, and very limited field of vision in the left eye. The right eye was treated by iridectomy, and the globe was afterwards enucleated on account of hæmorrhage. Mr. Bowman recommended iridectomy for the left eye also, as he considered there was no more risk and greater prospect of good than from sclerotomy, but the glaucoma relapsed, staphyloma ensued to the fullest extent possible, and the eye had been lost. In comparing the effects of treatments on two eyes in the same individual it was important to remember that the one first operated on was usually the worst.—Mr. LISTER said Mr. Watson's case was certainly a successful instance of sclerotomy. It was of general interest as an example of the effect of the relief of tension; it seemed that tension in the eyeball, as elsewhere, keeps up nervous excitement, which may subside if the tension is lessened even temporarily.—Mr. SPENCER WATSON did not mean in his remarks to compare sclerotomy with iridectomy; he valued iridectomy as highly as Mr. Lawson. But he thought it well to show the persistence of the good effects of sclerotomy in this case for six years and two years and a half. He thought the operation did good by relieving pressure upon the nerves. Mr. McHardy's case was a very favourable one for sclerotomy, as it is less likely to be followed by hæmorrhage, which proved disastrous in the first iridectomy, for the escape of the aqueous humour takes place more slowly. These intraocular hæmorrhages offer the strongest reason for choosing sclerotomy. The chief interest of his case was that the cystoid cicatrix was largest on the side where the result of the sclerotomy was best.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Case of Abdominal Tumour.—Inflammation and Ulceration of Appendix Vermiformis. — Spontaneous Passage of Large Gall-stones.

AT the meeting on the 20th ult., Dr. Broadbent, President, in the chair,—

Notes of two cases of Abdominal Tumour were read by Dr. Braxton Hicks. The first was one of suppuration from pelvic peritonitis following labour, in which a large amount of solid deposit was formed, surrounding and fixing the uterus, and extending nearly to the umbilicus. In the median line there was a soft prominent swelling, three inches in diameter, with fluctuation, marked resonance and succussion on agitating the pelvis. There was marked hectic daily. An opening was made by the scalpel; fetid gas and a pint of stinking pus escaped. A large drainage-tube was then introduced, and the sac washed out twice a day with iodine water. In three weeks the sac had completely closed, and the patient made an excellent recovery. Dr. Hicks remarked that it was important, when called to treat such cases, to know what other conditions gave rise to succussion, and he enumerated abscesses communicating with intestine, as cæcal abscess, abscess resulting from ulceration of stomach or intestine; cysts, ovarian and extra-uterine, communicating with the intestine. He suggested it would be found also when the bladder directly or indirectly communicated with the intestine, &c. Succussion was also to be found in the cases of enlarged or displaced stomach. He asked for experience as to other causes—e.g., hernia, &c., producing succussion, and then discussed the origin of the gas in pyogenic sacs, asking whether gas had been found in any case where it was impossible that air could have entered from the abdomen, lung, or external air. The second case was, as Dr. Hicks believed, unique—viz., one of extra-uterine fœtation, where, some months after the death of the fœtus at full term, the fluid in the amnial sac increased to such an extent, that by the end of about five months after full term the sac burst, and death by collapse ensued.—Dr. HABERSHON remarked upon the succussion in the first case, a sign which was often found in the dilated stomach. He had also detected a "splashing note" in an ovarian cyst which communicated with the cæcum; and he related details of a case of large intra-abdominal abscess containing gas in which this sign was present; but no communication was found with the bowel, although the abscess lay close to the intestine. The obscurity of diagnosis in these cases gave them great interest.—Dr. HEYWOOD SMITH suggested that the comparative thinness of the abdominal wall over the abscess would aid in diagnosis, and urged the value of "auscultation and percussion."—Dr. ROUTH advocated exploratory aspiration as a diagnostic means. He indicated the risks attaching to abdominal section in such cases as the second one described by Dr. Hicks.—Dr. BRAXTON HICKS, in reply, thought that in Dr. Habershon's case there might still have been a communication with the interior of the bowel. The diagnosis in his first case was clear enough, otherwise he should have made an exploratory puncture. His experience of cysts communicating with intestine was that as the sac shrinks so also does the opening into the bowel become smaller.

Dr. DAY read notes of a case of Inflammation of the Appendix Vermiformis in a boy, fourteen years of age, followed by peritonitis and death. The patient was first seen by Mr. Irving Page of Wimbledon on October 20th, 1881, suffering from the symptoms of a common bilious attack. On the 21st there had been no action of the bowels for three days; but a dose of castor oil brought away some hard lumps of fæcal matter. On the 22nd the abdomen was hard and tender, and he vomited yellow bile in the early morning. On the 23rd at 10 A.M. he had a slight rigor; temperature 101°, pulse 120; hands and feet cold and clammy; abdomen tympanitic. Dr. Day joined Mr. Page in consultation; but the patient gradually became worse, and died at 12 P.M. After death the usual signs of peritonitis were found, the intestines were glued together in places, and there was about a pint of healthy pus in the abdominal cavity. The appendix vermiformis was much inflamed, and contained several fæcal masses about the size of a pea. No external opening could be discovered.—Dr. COUPLAND mentioned two cases of ulceration and perforation of the appendix cæci which he had seen in the Middlesex Hospital. One was a girl, aged fourteen; the other a boy, aged eleven; and Dr. Coupland asked whether there was any explanation for the greater proneness of young than of adult persons to this affection. In each of these two cases there were symptoms of constipation, typhlitis, and peritonitis; and in each the appendix at the seat of and above the perforations was blocked by fæcal concretions. The mechanism of the ulceration was probably the same as that which occurs in the colon and cæcum from fæcal accumulation.—Dr. SANSOM said it would be interesting to learn the nature of the concretions in Dr. Day's case. Although children are in the habit of constantly swallowing hard foreign bodies, he had not met with a single case of their impaction in the appendix except some years ago at King's College Hospital, when in a case of this kind the nucleus of one of these concretions was found to consist of a felted mass of oat-hairs from a pudding.—Dr. HABERSHON asked if in any of these patients there had been any indications of tubercular disease, which might determine the proclivity to inflammation of the appendix. He thought the concretions shown by Dr. Day were of fæcal origin, and had seen similar cases. He alluded to the common and great error of administering purgatives in the early stage of cæcal disease, the treatment of which consisted in rest by opiates, and poultices to the abdomen.—Dr. HEYWOOD SMITH thought it advisable to combine large doses of calomel with the opium with a view to cut short the peritoneal inflammation.—Dr. DAY, in reply, remarked that at the beginning of the disease the boy was treated as for an ordinary bilious attack. His mother was certainly of tuberculous diathesis. Dr. Day was much opposed to the administration of calomel. — Dr. COUPLAND added that the mother of one of the children he mentioned had died of phthisis; but in both cases all the viscera, except the

appendix cæci, were healthy. In both the treatment consisted mainly in opiates and fomentations. The concretions in Dr. Day's case were referred to a committee, consisting of Drs. Day, Coupland, and Sansom, for report as to their nature.

Mr. SPENCER WATSON read notes of a Case of Large Gall-stones simulating Abdominal Tumour. A widow lady, aged seventy-nine, of spare frame and constipated habit, had suffered during the year preceding the attack of gall-stones from neuralgic pain in the head, right side of neck and right arm, and also from epistaxis with ulceration of the septum nasi. In the autumn of 1880 symptoms of acute intestinal obstruction set in, with supposed hydatid tumour of the abdomen and escape per anum of abundant serous fluid, and white hydatidiform membranes. Subsequently the originally soft globular tumour gave place to a hard nodular painful tumour, which occupied the right side of the abdomen, but remained stationary and unchanged for about nine months, when another attack of acute intestinal obstruction came on, and a calculus, the size of a small bantam's egg, was passed per anum. At the same time a slight diminution in the size of the abdominal tumour was noticed and the symptoms of obstruction passed off. A few days after, however, vomiting and tenesmus recurred, and after the administration of a large oil enema two large calculi were found in the rectum, whence they were with difficulty extracted. The symptoms then all disappeared, and the tumour also. There have been occasional transient attacks of vomiting and abdominal pain, but no obstruction and no calculi have been found in the stones. The gall-stones were composed for the most part of cholesterine, and the three together weighed nearly two ounces. There was no jaundice at any period of the case. Mr. Watson suggested that the epistaxis noted as an early symptom may have been induced by irritation of the nostril, referable in the first instance to the intestinal irritation due to the presence of the gall-stones, and that this condition was analogous to the nose-picking and sore nostrils in children affected with thread-worms. The case, however, was chiefly interesting on account of the large size of the gall-stones and the difficulties of diagnosis before they were passed.

Mr. E. J. PARROTT exhibited a specimen of Gall-stone of unusual size from a female aged sixty-five, whose first attack of gall-stone occurred in 1865, the second in 1866, and the third in February, 1875. In March, 1880, commenced a prolonged series of attacks of hepatic colic, with jaundice and vomiting, with more or less long intermissions. The sickness was mostly subdued by morphia. In January, 1881, Dr. Broadbent saw the patient in consultation, and on the 24th of that month a calculus one inch and three-quarters in circumference, and having three concave facets, was passed, and another measuring two inches and a half in circumference. In February, March, and April the attacks recurred, but then the jaundice gradually disappeared, only intense itching of the skin remaining.

The PRESIDENT remarked that the two cases together illustrated two modes of passage of gall-stones. In Mr. Watson's case the stone had apparently passed into the colon by ulceration; in Mr. Parrott's the stone had passed along the duct, possibly continually ulcerating into the small intestine. He then showed a large gall-stone which had been passed by a lady between fifty and sixty years of age. She was suffering from well-marked jaundice, and on examination the liver was found to be very large and irregular. There was some pain and tenderness, but no attack of severe suffering like that caused by the passage of gall-stone had been experienced. She had, however, from time to time severe attacks of asthma. The case was diagnosed as one of malignant disease, but after the jaundice had lasted about eighteen months the gall-stone was passed, and the patient gradually recovered, no recurrence of asthma taking place.—Dr. HABERSHON asked for the exact situation of the prominence in Mr. Watson's case. In his experience very large gall-stones had not taken such a favourable course. He instanced several cases.—Dr. ROUTH related a case where a large gall-stone was found when the patient was under the influence of chloroform.—Dr. WYNN WILLIAMS mentioned the case of a man in whom retention of urine accompanied the passage of gall-stone.—Mr. WATSON, in reply, said that the tumour occupied the space between the right iliac crest and the last rib. It was about four inches long.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of the Society was held on Wednesday, Feb. 15th, in the Medical Institute, Birmingham, Dr. Bassett in the chair.

Mr. J. F. WEST showed a specimen of Fracture of the Base of the Skull, caused by a violent blow on the nose, taken from a healthy man aged forty-eight. The patient, while shaping a pair of bellows at a circular saw, was struck violently in the face with the wood. There were no cerebral symptoms until shortly before death, forty-eight hours after the accident. At the post-mortem a fracture of the orbital plate of the frontal bone was found on the right side, close to the crista galli. The ethmoid was completely smashed, as were the septum nasi and turbinated bones. Effusion into the ventricles and at the base of the brain also existed.

Dr. WOOD WHITE exhibited a patient who had been completely blind with the right eye for over eleven years, a piece of iron two-eighths of an inch long having lodged in the capsule of the lens. The foreign body was removed by Dr. White at the Birmingham Eye Hospital, and a few weeks afterwards, with a three and a half inch lens, vision was normal.

Mr. T. F. CHAVASSE exhibited a man aged thirty-four, with Extroversion of the Bladder, upon whom it was proposed to perform a plastic operation.

Dr. MALINS read a paper on Laceration of the Cervix Uteri. After enumerating the causes and symptoms usually met with, the author stated he was able to verify the opinion of American gynæcologists that this lesion was not uncommon if diligently looked for, and that the statistics of eminent writers on this subject are probably a little under instead of over the mark. The operative measures necessary to remedy the malady were described, and Dr. Malins cited several instances under his own care which had been benefited by carrying out the same.

Mr. WEST read a paper on Aix-les-Bains and the Sulphur Springs of Savoy, in which an account was given of the chemical constitution and therapeutic virtues of the various mineral springs with which that country abounds. A description of the mode in which the thermal treatment is carried out at Aix was given, and the author spoke highly of its value in cases of rheumatic arthritis, gout, and in the various forms of constitutional syphilis. The springs of Evran in cases of lithiasis and those of St. Gervais in eczema, and other inflammatory diseases of the cutaneous system, were also strongly advocated, and the picturesque positions of these health resorts detailed.

Reviews and Notices of Books.

Leprosy in British Guiana; an Account of West Indian Leprosy. By JOHN D. HILLIS, F.R.C.S., M.R.I.A., Medical Superintendent of the General Leper Asylum, British Guiana, West Indies. Illustrated with Twenty Lithographic Plates, coloured and plain, from Original Drawings and Photographs of Patients at the Asylum, and several Engravings from Camera-lucida Drawings, by E. NOBLE SMITH, F.R.C.S.; of Pathological Specimens, mounted and prepared with Explanatory Remarks, by P. S. ABRAHAM, M.A., B.Sc., F.R.C.S., Curator, Royal College of Surgeons Museum, Ireland. London: J. and A. Churchill. 1881.

IN the work before us Mr. Hillis has done excellent service to science and the profession. Knowing by the experience of former years the disadvantage of not having a systematic treatise on leprosy in the English tongue to which to refer, he set himself to work under many conspicuously unfavourable circumstances to produce such a book with special reference to West Indian leprosy, and intended principally for practitioners in the West Indies, but written in the light of the studies of leprosy made in other countries, with which writings Mr. Hillis is thoroughly familiar. The result is an excellent volume, with well-written and clear descriptions of disease, and showing throughout a thorough knowledge of the whole subject. The book, as a guide and source of reference, cannot fail to

be of great service to those who in any part of the world meet with leprosy cases. But in addition to this, by the record of his observations and the admirable description of West Indian leprosy, we are enabled accurately and closely to compare the disease as it exists in the West Indies with leprosy in other quarters of the globe.

After these general remarks we proceed to note some of the more interesting of his conclusions. Mr. Hillis has, in accordance with the suggestions contained in the well-known Report of the Committee of the Royal College of Physicians, adopted the term *tuberculated*, which is synonymous with tubercular or nodular leprosy; and *non-tuberculated*, which coincides with Robinson's anæsthetic leprosy; and for what is ordinarily known as mixed leprosy he suggests the term *mixed tuberculated*.

Mr. Hillis has adopted these terms because in his experience both so-called anæsthetic leprosy and tubercular leprosy *frequently* run their course to the end as separate and distinct forms and varieties of one common morbid state, and he does not agree in the widely received opinion that if a case of leprosy progresses long enough, the one form will *always* run into the other, and that "mixed" leprosy is the final pathological state. It is, therefore, necessary, both for clinical and scientific purposes, to describe them separately. He thinks the mixed form is generally due to a combination of both running their course together in a modified form. Then, again, with regard to the term *anæsthetic leprosy*, there is anæsthesia in every well-developed case of leprosy, though Mr. Hillis thinks the causation different in the two chief vatieties; and Hansen some time since advocated the abolition of this term. Moreover, the course of either phase is well defined and dissimilar in many particulars—e.g., in the nature of the prodromata and in the primary eruption. Mr. Hillis has "established beyond a doubt," both from personal observation and otherwise, the existence of prodromata; thus in tuberculated leprosy there is premonitory fever, and also certain other prodromata—viz., pathognomonic drowsiness and profuse sweating as a constant feature, and often epistaxis, vertigo, lassitude, dyspeptic troubles, and shiverings, often ascribed to intermittent fever; in the non-tuberculated phase Mr. Hillis has observed somewhat different prodromata indicative of local-nerve disorder—viz., local or more or less general tenderness and pathognomonic lancinating, shooting, darting, or burning sensations along the course of nerves, whilst the marked drowsiness is absent. Further, in the latter phase, he points out as a very early symptom the difficulty in holding and grasping objects, not so much from want of sensation as from loss of coördinating power or muscular weakness, and, which is another new point, the outbreak of small and numerous bullæ on the as yet sensitive extremities as distinguished from the solitary large bullæ occurring on the benumbed areas in the later stages. One of the most important subjects discussed is the existence and nature of the primary eruption in leprosy, as upon this point much confusion and diversity of opinion exist. Lewis and Cunningham, in the Kumaon report, observe that "in the vast majority of cases the patients suffering from advanced tubercular or anæsthetic symptoms described their disease as having commenced with the occurrence of an eruption," and Hansen goes so far as to declare that an eruption always precedes the other forms. It seems pretty clear, however, that there is more than one variety of primary eruption, and Carter has separated a phase of leprosy marked by one kind of macular eruption as macular or spotted leprosy (*lepra leprosa*), and says such a macular eruption commonly precedes the anæsthetic phase, but very rarely the nodular. In this he has been followed by Kaposi. Mr. Hillis objects to the separation of this phase, and whilst agreeing in the main about the raised erythematous pathognomonic primary eruption of tuberculated leprosy, asserts that the early macules of non-tuberculated leprosy are quite different, and also pathognomonic, and insists that as a rule they appear after some other precedent evidence of nerve lesion, are due to impaired nerve influence, and appear without fever, whilst the patches of tuberculated leprosy are due to local deposit, and are ushered in by fever. The febrile disturbances arising from systemic infection, which Vandyke Carter thought not as common in India as in Europe, Mr. Hillis has very commonly observed, and finds they cease on the appearance of fresh eruption. With regard to the two great influences which are supposed to propagate leprosy, Mr. Hillis agrees in the main with the Indian observers, and also shares their difficulties in elucidating the matter satisfactorily. He keenly supports the hereditariness of leprosy, and has noticed that in hereditary cases the disease appears early, and that these are the most difficult to ameliorate. He agrees with Lewis and Cunningham in noticing that many children of lepers die young, and he has seen several very early cases; but, though favourably placed for the observation, he has never seen children actually born leprous. It is very desirable that further information should be forthcoming with regard to evidences of the "hereditary taint" and "leprous cachexia," written of in connexion with the children of lepers by Mr. Hillis, Davidson of Mauritius, and others. On the subject of contagion, Mr. Hillis has collected together all the recent arguments in support of it, and insists that a case at least for contagion is made out. Of the view of the origin of leprosy from fish-eating, he says emphatically, "It may now be laid aside as obsolete." The profession has already been made acquainted with Mr. Hillis's happy experience at British Guiana with gurjun oil in the treatment of this formidable affection, and there is no doubt that at last we find a ray of light here, inasmuch as we can at least retard the progress of the disease and ameliorate the leper's pitiful condition in some cases, if we cannot even cure it. There are tables prepared for comparison with those framed by Norwegian and Indian writers, and a great number of illustrative cases are cited. The book concludes with an account of the introduction and progress of leprosy in the colony, and the history of the leper asylum of British Guiana, together with a statement of rules and regulations in force there for its conduct and maintenance.

In respect of the anatomy of the disease, the results of Mr. Hillis's many post-mortem examinations are confirmatory of what we already know, but a new observation is the large number of deaths in non-tuberculated leprosy from a peculiar kind of extensive ulceration of the large intestine. Many specimens were transmitted to Mr. Abraham, the accomplished Curator of the Royal College of Surgeons of Ireland, who furnishes some excellent reports on the processes taking place as regards the neoplasm and the destructive secondary conditions in the bones and other tissues. Visitors to the late Congress had the opportunity of seeing many of these preparations, and amongst others the giant-cells and bacteria masses of Hansen. Our remarks on one or two selected heads will give some idea of the interest attaching to the many original contributions made by Mr. Hillis to this great subject, and we must, in conclusion, heartily congratulate him on the excellent handbook he has produced, on the beautiful plates, and the value of his original work.

Koumiss, or Fermented Mare's Milk, and its Uses in the Treatment and Cure of Pulmonary Consumption and other Wasting Diseases. By GEORGE L. CARRICK, M.D., Physician to the British Embassy at St. Petersburg, formerly Assistant-Physician to the Leith Hospital and Resident Clinical Assistant at the Hospital for Consumption, Brompton. Edinburgh and London: Blackwood and Sons. 1881.

THE treatment of consumption and other wasting diseases by fermented mare's milk has of late attracted considerable

attention, and the number of invalids who annually visit the Russian steppes for the koumiss cure is greatly on the increase. With the preparation and uses of koumiss, or kamiz, as it is sometimes called, the nomad tribes of Southern and South-Eastern Russia, and of Central Asia, have been acquainted, probably, from time immemorial, although it is not until the thirteenth century that anything like a distinct notice of it is to be found. William de Rubruquis, the great French friar and missionary, who wrote an account of his travels in Tartary in 1253, describes it under the name of *cosmos*. "The same evening," he says, "the guide who had conducted us gave us some *cosmos*. After I had drunk thereof I sweat most extremely from the dread and novelty, because I never drank it before. Notwithstanding I thought it very savoury, as indeed it was." In 1858 Dr. N. V. Postnikof, who had been struck by the remarkable recovery of a phthisical patient whom he had sent to drink koumiss amongst the Bashkirs, started a regular establishment near Samara for the treatment of consumption, and other wasting diseases, by fermented mare's milk. The success which attended the enterprise induced others to follow his example, and in a few years the fame of koumiss spread through Russia, and its efficacy as a remedy for phthisis was established. Before 1858 the number of patients who left their homes to undergo the mare's milk cure could be counted by the dozen, now nearly 1500 patients are treated annually in the several koumiss establishments in the vicinity of Samara alone.

Mare's milk is an opaque bluish-white fluid of thinner consistence than cow's milk, of an alkaline reaction, and a specific gravity varying from 1032 to 1035. It has a pleasantly sweet flavour like almond milk, and leaves no thick or creamy after-taste on the tongue. The chemical changes through which it passes in its conversion into koumiss consist in the sugar undergoing the vinous as well as the lactous fermentation, in the greater part of the casein becoming separated from the whey, and in a slight decrease in the amount of albumen and lacto-protein. For the production of koumiss it is absolutely necessary that the milk should possess certain properties, without which it will never effectually pass through the process of fermentation. Thus, if it be too rich the excess of fat is apt to cause it to undergo the butyrous fermentation, whilst if it contain too little sugar it will ferment too slowly, and the lactous will prevail over the vinous fermentation. There is good reason to believe that pasturage exerts a powerful influence on the quality of the milk, certain grasses either interfering with the fermentation or imparting an objectionable taste to the koumiss.

When koumiss is taken in doses of from two to eight glasses (counting three glasses to the champagne bottle) a sensation of coolness and freshness is experienced at the pit of the stomach, but is soon succeeded by a more than corresponding degree of warmth. The feeling of coziness quickly spreads over the whole body, and the cardiac pulsations increase in frequency and volume. An indisposition for bodily or mental work, and a strong inclination towards the *dolce far niente*, gradually creep over the patient. If the koumiss is strong, and the drinker unaccustomed to the use of stimulants, slight intoxication may be produced, the alcohol manifesting its calming and sedative rather than its stimulating or excitant effect on the nervous system.

Koumiss is recommended in nearly all wasting diseases; but Dr. Carrick's experience—extending over a period of ten years—is confined almost exclusively to cases of phthisis. He considers that, although not a specific for consumption, it is one of our best remedies. He gives in a tabular form details of twenty-four cases of phthisis pulmonalis which have been under his care, and his results are certainly very striking. These cases are fully and carefully reported, the change in all the important symptoms being regularly noted. The best result is obtainable only when the patient visits the steppes for several summers in succession, until the lung changes are permanently arrested.

The term koumiss should be applied only to fermented mare's milk; but in countries where mare's milk is not obtainable cow's milk may be substituted. When skimmed and diluted with water, cow's milk may, on the addition of a given quantity of sugar, be easily and successfully subjected to fermentation. It should be a cheap preparation; for, to begin with, it is skimmed of its cream, and from 25 to 30 per cent. of water added. It is not difficult to prepare, and in the country, where a supply of good milk is procurable, it might easily be manufactured on the spot.

Dr. Carrick, although evidently an enthusiastic advocate of the koumiss treatment, puts the case most fairly, and his book is singularly free from anything approaching exaggeration. He is a careful scientific observer, and may well feel proud of the result of his labours.

Proceedings of the Medical Society of London. Vol. V. Edited by THOMAS GILBART-SMITH, M.D., and EDMUND OWEN. London: Printed for the Society by J. E. Adlard, Bartholomew-close. 1881.

THIS volume contains the Proceedings of the Society for the two years 1879–80 and 1880–81, and the editors may be congratulated upon the very marked improvements they have introduced in the general arrangement of the contents. Besides the papers read before the Society, some of which appear in abstract, and the debates that ensued upon their reading, the volume contains abstracts of the Lettsomian Lectures delivered by Mr. Teevan and Sir Joseph Fayrer respectively, and the full text of the "Orations" by Dr. Broadbent and Mr. Durham. Many of the papers, too, are of much interest and abiding value, among which may be specially instanced those on the Passage of Gall-stones by Dr. Habershon, Renal Inadequacy by Dr. Andrew Clark, Tumours of the Cerebellum by Dr. Hughlings Jackson, Galvano-puncture in Aortic Aneurism by Dr. Ord, the Causation of the Murmur of Mitral Stenosis and Reduplication of Heart Sounds by Dr. Sansom, the Actions and Uses of Remedies employed in Bronchitis and Phthisis by Dr. Lauder Brunton, and on Muscular Atrophy by Dr. Allen Sturge. These and many other papers, some of which have appeared in our pages, point to the really useful and practical work being done in this old-established Society, and prove that it can hold its own in comparison with younger and more ambitious bodies. The volume bears evidence of careful editing, and it contains for the first time a complete list of the past presidents, lecturers, and orators, as well as a chronological list of the Fellows; and lastly, a very complete index.

Analytical Records.

MARTINDALE'S PURE ANÆSTHETIC CHLOROFORM.

WE have received from Mr. Martindale a specimen of his pure anæsthetic chloroform. M. Yvon recently published in the *Journal de Pharmacie et de Chimie* a new test for this body, consisting of a solution of permanganate of potash with caustic alkali. One part of the test solution is added to five of chloroform, and they are then thoroughly shaken up together for ten minutes. If at the expiration of that time the permanganate retains its purple colour the chloroform is adapted for anæsthetic purposes, whilst if it turns first green and then dark-brown from a deposit of oxide of manganese it is impure. The only precaution necessary is to use not a test-tube, as in ordinary testing, but a small and perfectly clean stoppered bottle. We have examined Mr. Martindale's specimens by the light of this new test, and find

that the solutions remain unchanged not only for the ten minutes required by M. Yvon, but for a much longer period. In a case in which this chloroform was given experimentally anæsthesia was induced calmly, pleasantly, and without difficulty, and there was no subsequent vomiting. The necessity for having our anæsthetics free from contamination becomes every day more and more apparent, and it is a decided advantage to have at hand a specimen on which absolute reliance can be placed as regards chemical purity.

A TASTELESS CASTOR OIL.

Messrs. Allen and Hanbury have recently introduced, under the name of "Oleum ricini insipidum," a variety of castor oil which seems likely to supersede the old-fashioned form with which we are all so familiar. Their "tasteless oil" is absolutely pure, is almost colourless, and is as free from disagreeable taste or smell as anything of the nature of oil can be. We have given it an extensive trial, and find that it is taken both by children and adults without the slightest difficulty, whilst its aperient effects are unquestionable. It possesses all the advantages that are claimed for it.

MESSRS. W. H. SCHIEFFELIN AND CO.'S SOLUBLE PILLS.

These soluble coated pills attracted much attention at the International Medical and Sanitary Exhibition last year. In general appearance they are undoubtedly a decided advance on the unsightly masses formerly sent out by chemists. That the coating dissolves rapidly is proved by taking one of the quinine pills in the mouth for a few seconds, when the bitter taste of the drug is almost immediately perceived. Some of the smaller pills of the alkaloids—as, for example, the $\frac{1}{250}$ gr. sulphate of strychnia or the $\frac{1}{100}$ gr. hyoscyamine—are attractive in appearance, and are readily taken by patients. We have already had occasion to point out in some of the larger pills the existence of an aperture or perforation resembling a pin-hole. It would be a great advantage if this were closed. In other respects the pills are excellent.

MESSRS. SAVORY AND MOORE'S ENEMA PEPTONICUM.

The above-named firm have recently introduced a preparation of peptones for enemata which promises to be a valuable addition to our modes of treatment in gastric ulcer, acute dyspepsia, the vomiting of pregnancy, and other cases where food is not retained by the stomach. The enema peptonicum is mixed with a sufficient quantity of warm water (about 98° F.) to obtain the necessary degree of fluidity, and then gently and slowly injected into the rectum. The great advantage of this preparation is that it is perfectly stable, that it will keep for an indefinite time, and that it is always ready for use.

MESSRS. R. LEHMANN AND CO.'S UNSWEETENED SWISS MILK.

This unsweetened Swiss milk—"Milkman's Brand"—is a valuable preparation both for children and adults. A palatable and wholesome milk or cream can be prepared in a few minutes by adding boiling water to the paste—one part for cream, four parts for milk. It is a good plan to stir the milk for a few minutes with a small brush, so as to reintroduce the air removed by boiling. It is guaranteed that the Swiss milk is prepared only in Switzerland, and there is an absolute immunity from the possibility of introducing with it zymotic disease.

EXT. CHEKAN LIQUID.

(WYLEYS & Co., COVENTRY.)

Some three years ago, Mr. E. M. Holmes, of the Pharmaceutical Society, gave an account of the "Eugenia," or Myrtus Chekan, an evergreen shrub resembling the ordinary myrtle, which grows in Chili. The odour of the leaves recalls the eucalyptus, to which the plant is allied; and as the extract has been credited with great power in the treatment of chronic bronchitis, Messrs. Wyleys have done well in introducing it to the notice of the English medical profession. We trust it will receive a fair trial. It is, at any rate, by no means an unpleasant remedy.

New Inventions.

MESSRS. MAYER AND MELTZER'S NEW CELLULOID SYRINGES, &c.

MESSRS. MAYER & MELTZER, of Great Portland-street, have been directing their attention to the use of celluloid or coralline for surgical instruments and apparatus, and from specimens that have been submitted to us it is evident that this material will be of great use to the surgeon. Its chief merits are extreme toughness, which enables it to withstand almost any violence, and renders all instruments made of it unbreakable; also its power of resisting destructive reagents, such as acids and iodine; its extreme lightness; its elasticity, and the ease with which it can be modelled and moulded. Very good stethoscopes are made of it, which possess acoustic properties equal to those of wood; and which can be dropped or even thrown about with impunity. The abscess and dressing basins in this material are light,

pretty, and a great improvement upon those made of vulcanite or metal. Messrs. Mayer and Meltzer have also made trusses in which both the springs and pads are covered with celluloid, no leather or other soft material being used. They are extremely cleanly, light, and durable; for children's trusses these will prove of great service, being neither absorbent nor acted upon by urine. But the coralline syringes and bottles are, of all, the most valuable surgical appliances hitherto made of this material. They are of all sizes, and can be used for all purposes. The barrel is made of transparent celluloid, and is very clearly and accurately graduated; the piston is of the same material, and thus any change produced by temperature acts alike on it and on the barrel, and the fit of the two never varies; the coralline also does not shrink as does leather. All the other parts of the syringes, except the rod of the piston, are of coralline. These syringes are therefore light, indestructible, cleanly, free from verdigris, &c., and work well. The bottles are made of transparent celluloid, with a very ingenious screw stopper of the same, which is air-tight, and will therefore be especially useful for carrying acids, iodine, and morphia. No doubt further uses for this material will be found, but those already noticed are sufficient to prove its great value.

THE LANCET.

LONDON: SATURDAY, MARCH 4, 1882.

THE LOCALISATION OF CATARRHAL ENTERITIS.

INFLAMMATION of the mucous membrane of the bowel—intestinal catarrh, as it is now customary to term it, irrespective of its cause—may be of very limited distribution. It is true that this statement has been contested by some authorities, notably by WOODWARD, on the ground that specimens of such localised affection are rarely to be found in pathological collections. But inflammation of less severity is naturally of less extent than that which brings its subject to the post-mortem table, and the frequent clinical evidence of localised enteritis is fully confirmed by the systematic examination of the bowel in cases in which the intestinal affection merely complicates other diseases. Our knowledge of the variations in symptoms which attend these changes in locality is, however, still vague and scanty. By the occurrence of jaundice we recognise that the duodenum suffers; tenesmus points to the rectum; while by the position of pain and tenderness we may often guess with more or less accuracy at the part of the intestine which is chiefly diseased, but we know little or nothing of the influence of locality on other symptoms which attend inflammation of the bowel. To supply facts to bridge over this lacuna in medical science has been the object of some observations, continued with characteristic industry for a considerable time, by Professor NOTHNAGEL, of Jena, in which symptoms and pathological appearances were most carefully compared, and the extent of which may be judged from the fact that a microscopical examination was made of more than one thousand evacuations. The results have been published in the *Zeitschrift für Klin. Medicin.*

The first question which he has studied is the indication to be drawn from the character of the stools. The significance of the passage of pure mucus, as indicative of an affection of the sigmoid flexure, is well established. Scybala embedded in mucus may, it is currently said, be due to an affection of any part of the colon, but NOTHNAGEL asserts that this condition of stool is only met with when the disease is below the splenic flexure, and it is certainly indicative of a catarrhal condition. The same conclusion cannot, however, be drawn from the passage of large well-formed stools surrounded by a layer of mucus. The latter indicates a condition in which catarrh may easily arise, but not an actual inflammation. The absence of mucus does not exclude the absence of catarrh of the lowest part of the bowel, as several well-authenticated cases show. Mucus may, moreover, be passed in abundance, when ordinary examination of the stools does not suggest its presence. In this state the stools are soft (not liquid) and apparently uniform, but a thin layer, between plates of glass, presents, under the microscope, numerous clear islets of pure mucus. This condition is of considerable importance in regard to localisation, and indicates catarrh of the small intestine, with or without implication of the ascending portion of the colon. With such evacuations the lower half of the colon is always healthy. If the latter is affected, the mucus is found not only in the substance of the fæces, but also on their surface. In some cases of catarrh of the whole of the large intestine, the stools are of a pulpy, almost fluid, consistence, and contain small globules of mucus, but these are so large as to be visible to the naked eye. The microscopic globules come only from the small intestines. On the other hand, the former cases are distinguished from catarrh limited to the lowest part of the colon by the intimate mixture of the mucus and fæcal matter. Of course, this conclusion does not hold good for the cases of severe dysenteric inflammation of the whole colon, in which pure muco-pus is evacuated, or in which, in consequence of the damage to the membrane, mucus is no longer secreted. There is yet another form in which mucus is passed which is of diagnostic significance—globules of mucus coloured yellow by bile pigment. These are never found in catarrh which is limited to the colon; the small intestine is usually, and often chiefly, involved. The appearance is not infrequent in typhoid fever.

Another constituent of the fæces which is of diagnostic importance is bile pigment. It is well known that under normal conditions the contents of the bowel cease to react, in a characteristic manner, to GMELIN'S test, at or about the ileo-cæcal valve. The play of colours no longer commences with a conspicuous green. A characteristic reaction in the fæces, or at least in certain of their constituents, indicates that there is an augmented peristalsis of the colon and lower part of the ileum. NOTHNAGEL has never been able to obtain this reaction in the general mass of a consistent stool. If unaltered bile pigment is present, the consistence of the fæces is always more or less liquid. A retention in the colon sufficiently long to give firmness is always attended with a transformation of the pigment. It is rare, under any circumstances, for the reaction to be obtained from the whole of the fæcal mass, except in acute infantile enteritis. Much more frequently the unaltered bile pigment is found only in portions which contain much mucus. Sometimes the same evacuation contains both clear and yellow-stained mucus, the latter giving the bile reaction and coming from the small intestine, the former from the colon. The presence of the former was invariably found, post mortem, to be associated with catarrh of the jejunum and ileum. It implies an increased peristaltic action, which must, however, involve not only the small intestine, but also the colon throughout its entire length. If the greater part of the large intestine is healthy and the stools infrequent, no unaltered bile pigment may be passed, in spite of the existence of catarrh in the lower bowel. Micro-chemical investigation often shows that not only mucus but cylindrical epithelium contains unaltered bile pigment. The diagnostic significance of this epithelium is the same as that of the bile-stained mucus. The staining of the epithelium may be proved, post mortem, to occur in the small intestine, but only after detachment from the mucous membrane, since that which is still *in situ* is always colourless. Rarely, leucocyte-like corpuscles and fat globules, stained with unchanged bile pigment, may be found in the stools, and have the same significance as the epithelium.

The presence of unaltered fragments of food in the fæces constitutes another element of diagnostic signifi-

cance, since their quantity indicates normal variations in different parts of the intestinal canal, being far greater in the small than in the large bowel. Fragments of muscular fibre are invariably present under normal conditions, and hence only a considerable excess can be regarded as pathological. The significance of this constituent relates only to the small intestine, for the colon has no influence on its presence. Whatever passes the ileo-cæcal valve is ejected without further change. A series of careful observations has shown that the digestion of muscular fibres is greatly hindered by pyrexia; that, in the presence of fever, an excess in the stools affords no diagnostic indication. Mere increased peristalsis, without fever or catarrh, is also capable of causing the excess; and if the motion of the contents of the intestine is not accelerated, intestinal catarrh does not increase the amount evacuated, and an excess therefore only points to such catarrh when other indications of this, such as mucus, are present at the same time. An excess of starch granules has a similar significance. Intestinal catarrh seems also to be without material influence on the amount of fat in the fæces. The anatomical changes induced in the mucous membrane are absolutely without influence on the absorption of fat.

The conclusion of most previous writers, that physical examination of the abdomen furnishes but scanty indications for the localisation of enteric catarrh, is confirmed by NOTHNAGEL. An extensive series of auscultatory observations were made, the relative loudness of gurgling sounds in different parts of the abdomen being noted simultaneously by two observers, but the ready conduction of the sounds from one part of the abdomen to the other made definite localisation impossible. Only when the noise was produced in the ascending or descending colon, and the small intestine contained liquid, was it inaudible on the other side. Nor does percussion teach much regarding the localisation of intestinal catarrh, since the condition which usually obtains—less resonance in the central part of the abdomen than in the position of the colon—is also present in normal conditions. Even the alteration in the normal relative resonance of the two iliac fossæ, so frequent, as TRAUBE showed, in typhoid fever, is produced by many conditions, and is of little diagnostic value. The study of the indication afforded by palpation confirms, but does not extend, the well-known significance of local tenderness and of local gurgling perceptible to the touch.

The last diagnostic point investigated by NOTHNAGEL is the excretion of indican by the urine, which, as is well known, is increased in a remarkable manner in many affections of the gastro-intestinal canal. Unfortunately the extensive observations, including two thousand separate estimations of indican in the urine, of cases which were carefully watched, have yielded but little result. An increase was found in the majority of cases of intestinal catarrh and diarrhœa, and very often also in cases in which there was no intestinal affection at all. When the colon only was affected, however, no excess of indican was observed so long as the general condition of the patient was good. On the other hand, in all cases in which there was a decided catarrh of the small intestine, the indican was increased. So constantly was this found that NOTHNAGEL was inclined to believe that the absence of an excess of indican gives ground for excluding catarrh of the small intestine, but his conclusion was rendered doubtful by a series of cases of exanthematic typhus, with severe intestinal catarrh, in which no indican was found in the urine. It may be doubted whether his previous conclusion is altogether invalidated by this fact; it may still hold good for the simpler forms of enteritis.

These laborious investigations, in a department of practical medicine, often passed over as alike unpromising and uninviting, deserve the highest praise. They add materially to our knowledge of enteric symptomatology, and they show how important are the facts which may be ascertained by a systematic study of the night-stool, and which has been too little regarded by the present generation of clinical observers.

THE great experiment in Manchester in the matter of Provident Dispensaries is highly interesting and important. On whichever side of the controversy we range ourselves, we must equally feel that the questions raised are of the deepest interest both in a social and in a professional respect. Any movement which tends to educate the working classes in understanding that it is their duty to make a provision for medical attendance, not only on themselves, but on their wives and children, deserves the attention, and presumably the support, of both the public and the medical profession. It is strange that men—not always working men—should so long have been under the delusion that, while the baker and the butcher and the publican must all be paid, the doctor is to be had for nothing, and that there is some unwritten law in virtue of which he is bound to leave his bed or his home, at everybody's call, and at any hour of the day or night. The days of this ignorance are coming to an end, and people are beginning to perceive that the doctor is a man to be reckoned with, who has to live, who has to buy a costly education, to bring up children, and to keep an expensive establishment for the conduct of his work and that he may attend to his patients. Among the persons who are entitled to the credit of dispersing some of this ignorance the promoters of Provident Dispensaries are fairly to be reckoned. They sometimes forget that there have been pioneers; they are not always mindful of the delicacy of existing relations between families and their medical advisers; and they conceive too inadequately of the value of medical services. But after making all these deductions from their merit, it still remains that they mean well, and have hold of a very important truth—that medical attendance on the working classes should be paid for by themselves, and that this should be done by means of a provident subscription at stated times towards that object.

The annual general meeting of the Manchester and Salford Provident Dispensaries Branch of the District Provident Society was held lately, and calls forth our present remarks. The report was considered satisfactory. Ten branches are now in active operation. There is evidence, in the diminishing number of prescriptions and of calls on the medical staff, that the bulk of the members enter their names from provident motives and feelings, and not merely from the urgency of an occasional illness. Though several of the dispensaries are self-supporting, and even more, the total excess of expenditure over subscriptions during the year—including the establishment and mainte-

nance of new branches, the general expenses of management, and the cost of investigation into the circumstances of the applicants at the charities connected with the Association—amounted to £669. For this sum the Society is still dependent on patrons. At the request of the Board of the Manchester Royal Infirmary, inquiry is now made into the circumstances of in-patients, and the result has been that 13 per cent. of the friends or relatives have been found able and willing to contribute towards the cost of their maintenance. It is alleged that a very large decrease has taken place in the number of persons treated gratuitously in the medical charities associated with the Provident Society, and that no such decrease has taken place in those charities which refuse to have the fitness of applicants to receive gratuitous treatment inquired into.

Dr. WATTS, the President, speaking in defence of the movement, said that "the gross number of members, including children who are not paid for specifically, was 13,328. During the past year the members had paid £2548, and of that there had been handed over to the medical staff £1348, which would yield about two shillings and a farthing per member." Those who wish to see what can be said for the Manchester experiment would do well to read the very able speech of Dr. WATTS. He made the most of the heavy medical bills which sometimes hamper the honest working man, and which are evaded by what we must call the mere pittance that is flung to the medical profession in most Provident Dispensaries, altogether disproportionate to the time expended and the work done. As to heavy bills sent in to working men by medical men—£13, £9, £28,—surely these are not very common. It is infinitely more usual to find a medical man adapting his charges with great moderation and kindness to the means of his humble patients. Dr. WATTS claimed that the money received in these dispensaries had been, as it were, saved out of the fire, and that, apart from the provident arrangement, almost none of it would have been forthcoming. This is a main question in dispute between him and a large section of the profession in Manchester, who maintain that much of it has been received from those who can pay ordinary accounts. There is no refutation of this view in Dr. WATTS's speech; but he mentions that the alleged abuse of the dispensaries by unfit persons is under the investigation of a joint committee of the Medico-Ethical Society and of the Manchester District Provident Society. The old Friendly Societies have the credit of having laid the foundations of provident medical attendance, and they have shown more sense of the value of medical service than the promoters of provident dispensaries have yet done. But they have one great defect, which is properly pointed out by Dr. WATTS: they make no provision for attendance on wives and children. It is not to be forgotten or denied, however, that, even so, the members of such Societies have generally a sufficiently strong sense of honesty and self-respect to pay the medical man, generally the club doctor, who attends the wife and children, a pound or two in the year—a sum very much larger than is contemplated in the schemes of provident dispensaries; so that, unless it can be conclusively shown that the provident dispensaries are catering for lower classes than those which form the strength of the Friendly Societies, it is open to doubt whether they are raising the public estimate of medical service.

PROFESSOR GERALD YEO has made a very important and instructive contribution to the literature of vivisection in his article on "the Practice of Vivisection in England," in the present number of the *Fortnightly Review*. In addition to a criticism of the fallacious reasoning and an *exposé* of the exaggerations and mis-statements of such one-sided writers as Miss COBBE and Lord COLERIDGE, the essay contains an exact account of experimental research as it is now practised in England, and as it has been carried on since the passing of the Cruelty to Animals Act in 1876. Such an account is especially necessary at the present time, that the public may be fairly able to judge of the expediency of any further legislation that may be contemplated on either side of the question. It is rumoured that Mr. REID intends to lay before Parliament a Bill for the absolute prohibition of vivisection. Sir JOHN LUBBOCK may urge the modification or the repeal of the existing Act. At the commencement of his article Professor GERALD YEO urges most strongly that the work of English physiologists ought not to be compared with that which is done abroad, and the reports to Parliament for 1878, '79, and '80, the more important parts of which are quoted *in extenso*, completely justify his position. From them it is quite evident that the number of painful experiments performed under the "law as it now stands," is almost a minimum. "In only sixteen cases during three years does the amount of pain appear to have been greater than that accompanying the healing of a wound of the skin." Seventy-five per cent. of the vivisections in the reports are absolutely painless, and only 1 per cent. entails as great an amount of pain as is attendant on an ordinary surgical operation. We can easily understand why these reports have not been referred to by those who are always urging the necessity of a total prohibition of vivisection. Sensational pictures of Continental barbarities, as much detested by English physiologists and medical men as by the lay public, are much more stimulating and efficacious in an anti-vivisectionist campaign. Dr. YEO points out that since the introduction of chloroform, experiments on living animals in England are much more merciful than even when they were performed by such humane men as HARVEY, HUNTER, Dr. JOHN REID, and Sir CHARLES BELL. Experiments without anæsthetics have only been occasionally undertaken of late years, in cases in which the anæsthetic would have deprived the research of its value; and Mr. COLAM'S evidence before the Royal Commission is adduced in support of this statement. To our readers who are familiar with the practice of vivisection in England, the most interesting part of the article will be that which deals with the legal aspect of the question. Lord COLERIDGE pronounces the extraordinary dictum, "Control it you cannot." The Lord Chief Justice's want of logical sequence, in stating that he should support "absolute prohibition," although personally preferring in the abstract "regulation to prohibition," and although "total prohibition might or would stand in the way of justice or humanity," is mercilessly exposed, and the sentimental nature of his opposition to vivisection and the absence of any practical knowledge of its working and its methods in England, are forcibly shown. Regulation is really much more easily carried out than prohibition. The Act at present ensures the absence of any cruelty to animals. Physiologists (according to Dr.

GERALD YEO) are not seeking its repeal, but would be satisfied if the Home Office did not unnecessarily delay the granting of licences to applicants, or refuse certificates to proper persons when the scientific authorities specially appointed by the Act recommend a proposed research. It is, on the face of it, a monstrous absurdity that a Minister appointed for political reasons only should have the power to disregard or nullify the opinions of the highest scientific bodies as to the need for a given set of experiments, or the competence of the performer. Let us picture to ourselves the Duke of BUCKINGHAM or some other minister of CHARLES I. anxiously meditating on the necessity of the experiments which HARVEY performed in order to demonstrate that the blood circulates, and we have a parallel instance to Sir WILLIAM HARCOURT'S endeavour to understand and decide upon the bearing of certain inoculations on the germ theory of disease.

WE believe we are correct in stating that, owing to the great need which, now that it has been pointed out, is felt by all classes to exist, and to the energetic advocacy of Dr. HOWARD, a system of Ambulances for the whole of London will before long be an accomplished fact. In THE LANCET for Feb. 11th we considered several points which will have to be discussed by the Committee that has been appointed to investigate this matter, and we indicated our preference for the plan which would place these ambulances under the control of the Home Office. But on the present occasion we would draw attention to some important considerations arising out of the proposal to connect the ambulances with the existing hospitals. Hospitals are with us free and independent charitable institutions, offering aid to persons in particular conditions of poverty and disease; and those who are responsible for the internal arrangements of these charities have to consider chiefly how they may best apply the money committed to them for certain definite objects, and also attract increased support. Provided they do not infringe the common law of the land, they are free in their action. A hospital may extend its charity as wide as it chooses, or may limit its area as narrowly. It is true that hospitals, like all our public institutions, have become the objects of more or less careful inquiry and criticism; and the force of public opinion is now so strong that it exerts its influence even in the councils of those hospitals which are independent of the support of the charitable portion of the community. But it has never yet been maintained that a hospital is bound to succour every applicant for its charity. However, the ambulance service will be on quite a different footing. The ambulance must be always ready, and at the beck and call of anybody and everybody—the rich and the poor, the badly and the slightly injured, each and all are to be able to claim this aid in any case of accident or sudden illness in the street. The ambulances are to be used not only for conveying patients to the hospitals, but also for taking them to their own homes. The ambulance, in fact, is to be at the command of the sufferer, and to be considered as public property. Now it is difficult to reconcile this arrangement with the purely voluntary and charitable principle of hospitals; and for an analogy we have to look to workhouse infirmaries, &c. And the point we are desirous of urging is, that if such duties are to be undertaken, the cost must not be borne by the charitable only, but by all classes of the community; in the absence of a better mode the money may be provided by the vestries, out of the rates. As the subscribers to a hospital would be quite unable to regulate this department, it is clearly wrong to expect them to support it; for the very first principle of such charities is, that those who find the money must control its expenditure. As soon as any part of hospital relief is made compulsory, the institution loses its character as a charity, and fails to appeal to the generous support of the charitable with the necessary force. But to make the ambulance departments of hospitals rate-supported is to rest their maintenance on those who would reap the benefit of them, and ultimately control them. The larger question of supplementing the general funds of hospitals by contributions from the rates has received support in influential quarters. We considered that question last week, and do not wish to pursue it any further just now. It is a step which must be taken with deliberation and caution; and to carry out the lesser change which we here advocate would be an invaluable preliminary experiment. Upon its success or failure the solution of the larger question may ultimately greatly depend.

AN imposing deputation of shipowners, gathered together from all parts of the kingdom, had an interview with Earl GRANVILLE on the 27th ult., in reference to the recent imposition of quarantine by the Egyptian Government in the Suez Canal, and the block of shipping there. The Foreign Minister was pleased to suggest that high winds had something to do with the block, but apart from such obstruction as an exceptional prevalence of contrary winds may have occasioned, there were the successive announcements of the Egyptian Sanitary Administration barring the canal by means of quarantine against all traffic from the East Indies, and finally putting all British Indian ports in quarantine. This, in fact, had been looked for by those who had watched the signs of the times, and observed how the shortsightedness of Aden had rankled with the Ottoman and Egyptian sanitary authorities. For the Aden authority to have withheld from Egypt and Turkey the news that for a month cholera had been in that settlement was the surest means to confirm the Egyptian and Turkish sanitary authorities in their distrust of information as to cholera derived from Indian sources, and to impel them to put in force their ultimate resource—namely, a declaration of quarantine against Indian ports. The vexatiousness of such a course need not be dwelt upon, nor its utter futility for the end in view, even when regarded from the extravagances of quarantine; the enormous losses to which the delay exposed British shipping, and caused to be poured into the coffers of the quarantine authorities money which, for any permanent sanitary good it effected, might just as well have been poured into the sea. Earl GRANVILLE could hold out little hope to the deputation of inducing the Egyptian Government to change its sanitary administration for the better. And when a system such as quarantine is carefully excluded from the test of experience, and is judged as a logical exercise where he who is most apt to indulge in the widest and vainest logical conceptions is approved as the farthest-seeing individual, the probable is hopelessly sunk in the possible.

As the facts of the recent outbreak of cholera in Western Arabia become better known, it must be conceded that the Sanitary Administration of Egypt, and that also of Turkey in the Hejaz, have had greater reason for the scare they have undergone than is commonly conceived. The disease has not only prevailed at Mecca and in Medina, but in the surrounding villages. Jeddah, the port for Mecca, has also suffered, and Yembo, the port for Medina. El-Wedj, the quarantine port on the Egyptian coast, has come in for its portion of the outbreak among the pilgrims in quarantine there. At present there is no news of the disease having extended further northwards. Official returns give the total deaths during the outbreak at under 5000; but medical men on the spot, who have had the opportunity of estimating the probable loss of life in the Hejaz, unhesitatingly state it at from 8000 to 10,000. It is no wonder, then, that the Egyptian sanitary administration, in view of a mass of pilgrims who had just suffered from a serious outbreak of the disease returning through Egypt, looked upon their return in a very serious aspect, and reverted to its traditional policy of quarantine with the extremest faith in its merits.

Annotations.

"Ne quid nimis."

THE SANITARY STATE OF CLAREMONT.

IT is desirable, as we remarked on a recent occasion, that all Royal residences should be carefully and thoroughly examined before they are visited by the family, and that this examination should be carried out at such periods as will allow the immediate effects of disturbance to subside before the buildings are used for residential purposes. It is satisfactory to know that Claremont has been subjected to a searching investigation in view of the use of that house by the Duke of Albany after his marriage. We understand that an entirely new series of drains has been constructed, and that the system of sewerage will henceforth be perfect. Let us cherish the hope that this may be proved to be the fact by the immunity of the household from disease. It is not, we understand, true that typhoid fever has recently occurred in the establishment at Claremont. Only one case is reported, and that was in the Prince de Joinville's time. It is also believed by those who were fully informed of the circumstance, that this was an instance of imported disease. It is impossible to be too careful in sanitary matters, and we would still urge the utmost caution. Speaking generally, it must be confessed that there are grounds for anxiety with regard to most of the Royal palaces and residences, and some of those which are not old enough to have been entirely reconstructed—so far as their sanitary arrangements are concerned — in modern times, are amongst the worst, or at least the most questionable.

THE TEMPERATURE OF PARLIAMENT.

OUR philosophical instrument makers have conferred great benefits on mankind by the invention of instruments for taking the temperature of the sick and of the depths of the sea. We commend to them another desideratum—that of an instrument for taking the temperature of Parliament, which of late has been abnormally high. We know, as physicians, that all vital operations are in a bad way when they are conducted in conditions of high temperature. Even a degree or two above normal is sign enough to the wise physician to be dissatisfied. It is even so with the political and intellectual duties of the Legislature; they must be discharged at normal temperatures if good is to be done. The instrument that we are in search of would doubtless show that such men as Mr. Gladstone and Sir Stafford Northcote, with their splendidly balanced constitutions, rarely reach fever heat, even when the general political atmosphere is charged with inflammable gases; but the temperature of Mr. Biggar, and even of Lord Randolph Churchill, would doubtless prove to be febrile, with violent oscillations, indicating bad cerebral action, and perhaps affording some excuse for those breaches of taste, and even of manners, which appear to the public outside the heated atmosphere so unworthy of Parliament. It would be a great service if our instrument makers could demonstrate whether the phenomena which for the nonce seem to have replaced the "deliberations" of Parliament are only the effect of an extra degree or two of temperature—which, in its very nature, is likely soon to cease and determine,—or whether it is a veritable hyperpyrexia needing an energetic application of cold water.

PROPOSAL TO ENDOW A CHAIR OF PATHOLOGY IN GLASGOW UNIVERSITY.

AT the meeting of General Council of the University of Glasgow, to be held on April 26th, Dr. J. A. Campbell, F.R.S.E., will propose "that a Committee of Council be appointed for the purpose of obtaining the assistance of graduates and others in endowing a Chair of Pathology in the University." We heartily commend this action by Dr. Campbell, and offer our wishes for success in his well-timed effort. It seems surprising that a chair of Pathology should not have existed long ere this in a school of such magnitude. Such a resolution as the above ought only to need proposal to secure enthusiastic support; and as there are between 3000 and 4000 members of Council, united action would at once enable the endowment to be proceeded with. So far as we can make out from the University Calendar, £270 appears the highest endowment of a medical professor in Glasgow, exclusive of fees. If the class of Pathology be made compulsory, as it should be, this small sum would be sufficient. An average subscription of £2 from the members of General Council would be about enough, and surely this will be forthcoming. Medical men, as a rule, contribute their share to the general subscriptions that go on in the world, and in a case of this kind they will be likely to respond quickly and heartily; but all graduates should make common grounds in such a matter affecting the fame, the repute, and the future usefulness of their *alma mater*. A good committee, a popular and enthusiastic chairman, and an energetic secretary will soon put matters on a right footing, and we hope our next reference to pathology in connexion with Glasgow will be to announce the success of this movement and the endowment of the chair.

LARYNGEAL ELECTRISATION.

CAN the nerves and muscles of the human larynx b excited directly by electrical stimulation applied through the skin? To this question Rossbach has endeavoured to obtain an answer, and his experiments enable him, he believes, to give an affirmative reply. An individual was selected, tolerant of laryngoscopic examination, and a knob-shaped moist electrode was placed midway between the larynx and the sternum, in front of the anterior edge of the sterno-mastoid, being pressed as deeply in as could be without causing much pain. The other electrode was placed in some indifferent situation on the back of the hand. With this arrangement, whenever an opening or closing shock was sent between the poles, on the side on which the electrode was placed in the neck a distinct contraction could be observed. The vocal cord moved inwards in its whole

extent, together with the arytenoid cartilage. The closure-contraction was the strongest when the cathode, the opening contraction when the anode, was placed on the neck. Immediately after the stimulation a movement of swallowing occurred, which rendered further observation impossible. If the stimulation was made while a note was being uttered, the effect was to increase the pitch without interrupting the sound. The effect is ascribed to stimulation of the recurrent laryngeal nerve. Experiments with faradisation yielded the following conclusions. The passage of a strong current transversely through the larynx, an electrode being placed on each side of the thyroid cartilage, had no effect on the vocal cords or on the arytenoid cartilages. The free upper edge of the epiglottis was drawn forwards and its lower part backwards. The aryteno-epiglottidean folds were moved inwards, together with the false vocal cords. If one electrode was placed on the side of the larynx and the other on an independent place, the effect was the same, but was confined to one side. A slight movement of the vocal cord was produced by an attempt to faradise the recurrent laryngeal nerve of one side, and the effect was still more marked if an electrode was placed over each recurrent laryngeal, a distinct tremor of the arytenoid cartilages being produced. Hence Rossbach concludes that, in addition to the reflex effect of a painful cutaneous stimulation and to the effect on the larynx of stimulation of the external muscles, electricity applied outside the larynx can directly stimulate, feebly but unquestionably, the laryngeal nerves.

NIGHT DUTY IN THE ARMY.

IT appears that ophthalmia is prevalent to such an extent in the Russian army as to have attracted the serious attention of the military authorities, who have issued special regulation, with a view to its diminution. These consist chiefly in increased means of ablution, cleanliness of the clothing, ventilation and heating of the barrack-rooms, reduction of sentry duty, and attention to the amount of drill and rifle practice and of the hours at which these take place. The necessity for some of these regulations may be inferred from the terms in which they are expressed. Thus, on the subject of personal cleanliness it is ordered: "You are to take care that the troops, both in barracks in winter and in camp in summer, are provided with a sufficiency of water for washing their faces and hands." The order regarding sentry duty, however, is one which might be advantageously studied in this country. "Sentry duty must be so arranged that a private is only engaged one night out of six, as sleepless nights affect the eyesight even of healthy persons." In our service there cannot be a question that there is a large amount of unnecessary night duty, and although it does not show its effects in the shape of ophthalmia, it cannot fail to tell upon the general health and condition of the men. Under the new organisation of the army, which brings into the ranks a large proportion of young men who have not yet attained their full physical development, it surely becomes an imperative duty upon the authorities to place them in the most favourable circumstances possible for the preservation of their health and the development of their physique. One of the most essential conditions for this is a fair amount of night sleep. But this we believe the troops, especially those quartered in London, do not get. The number of sentries at night is unduly large; a great deal of the duty, if indeed it can justly be so called, could be as well or even better discharged by the police. However necessary it may be considered to keep up an appearance of military security over our public buildings by day, we fail to see why the number of sentries might not be reduced at night, and the men thus ensured the amount of rest requisite for the preservation of health. It will hardly be doubted by anyone who has paid attention to the subject that the heavy night duty in London is an active agent in the production of phthisis among the men of the Foot Guards. If it be necessary or advisable to carry out the system of short service with its unavoidable consequence of a large proportion of young soldiers, it is not too much to expect that every means should be taken to remove those causes of disease which are most likely to affect the young and as yet immature men who must necessarily constitute the bulk of the army.

"THE FOLLIES OF FASHION."

MR. FREDERICK TREVES has recently delivered a lecture which is likely to give new impetus to the slow, but nevertheless sure, reaction setting in against the follies of fashion in feminine attire. There was little, if anything, new—in the nature of things there could not be much of novelty—in the facts stated or the arguments employed by Mr. Treves; but the case was so well and forcibly put that it can scarcely fail to do good service to the cause of that reform which so many have at heart. The follies of conventional costume, with its unequal distribution of clothing and irrational compression of parts of the body—especially parts that ought to be free, such as the waist—have been frequently exposed, and their injurious tendencies completely demonstrated. There is, however, no tyranny so oppressive as that of the *mode*. A woman might as well be dead as out of the fashion. It is the aim of her existence to dress for the admiration of the opposite sex; and in carrying out this, her natural passion, she is not content to be guided as instinct instructs her, but feels and acts as the subject of an unseen authority which dominates society, and renders even sensible and in other respects reasoning and reasonable women slaves. There is something mysterious in this submission, because it is perfectly well known that the rulers of fashion are not its leaders. Those who determine the cut, colour, and general contrivance of feminine costume are not the wearers of the dresses they design, but the manufacturers. "Women of fashion" are so only in name; they are, in fact, nothing more than the show figures on which tradesmen and tradeswomen display their wares. If the facts were fully and plainly stated, the fashionable intelligence would not announce that at a particular assembly Lady Little Waist wore gorgeous apparel of such or such a material and made in such and such a style; but that Messieurs or Mesdames Snip and Stitch exhibited a costume on the person of Lady L. W. This is not a travesty of the truth as to the transaction, but a simple statement of the facts. The supreme folly of this general arrangement underlies all the minor and particular follies of fashion in dress. Individual women would be deterred by modesty, to say nothing of common sense, from arraying themselves in the garments provided for them if it were not understood that the dress-wearer is in the hands of the dressmaker. It is notorious that mothers recognise the evils and the anomalies of the *mode*, and yet train up their daughters to walk in their footsteps as the slaves of fashion. It is of little use discussing the physiological aspects of the question, because they have already been discussed so thoroughly that they do not need to be further demonstrated. The audience at Mr. Treves' lecture must be described as a gathering of the slaves of fashion, not assembled to be convinced of their follies, but gloating over their gilded fetters, and exulting in the thraldom they docilely endure. In short, there is no need of enlightenment on this subject of dress. The situation calls for a visitation of common-sense. Women should be moved to be free. Certain associations recently formed have promised to substitute a milder and better *régime* for that which now dominates the world of fashion; but this would only be a

change of masters. Dress can never be thoroughly reformed or fashion rendered less foolish until women begin to assert their individuality and clothe themselves in costumes which are understood to be of their own choosing, so that the wearer of indelicate or graceless attire may stand confessed as personally responsible for the transgression of the rules of reason and modesty. It is under cover of the *mode* women dress, or rather undress, themselves, to the verge of flagrant impropriety, that they distort their figures and strangle their waists. They would not dare to do these deeds of folly or offence, nor would their husbands and fathers allow them be done in their families, but that the responsibility is *supposed* to rest with the makers of fashion. Women of fashion protest that they are "in the hands of their dressmaker," and hence they *can*, and do, go madly astray.

THE LATE SURGEON-MAJOR PORTER, A.M.D.

WE have received the report of the committee appointed to carry out the wishes of the subscribers to the Netley Memorial to the late Surgeon-Major Porter, who died at Cabul in 1880. After full consideration, the committee decided to place in the chapel of the Royal Victoria Hospital at Netley a mural tablet having upon it a life-size medallion portrait of the lamented officer. The medallion is of pure white statuary marble on a polished black background, with the following inscription underneath it on white marble:—"In memory of Surgeon-Major Joshua Henry Porter, A.M.D., Assistant-Professor of Military Surgery in the Army Medical School from Dec. 31st, 1873, to Dec. 31st, 1879. He died at Sherpur, Afghanistan, while Principal Medical Officer of the Cabul Field Force on January 9th, 1880. A skilful surgeon, of large experience in peace and war, a true friend and comrade, upright in all relations of life, zealous in good works, he lived fondly regarded, and died sincerely regretted by all who knew him. 'Faithful unto death,' Rev. ii., 10." The medallion was executed by Mr. Verheyden of London, and has given much satisfaction to Dr. Porter's friends and brother officers, as being an excellent likeness. A photograph of the tablet has been sent to each subscriber to the memorial.

THE CURE OF PNEUMOTHORAX.

THE cases of pneumothorax related at the last meeting of the Clinical Society by Dr. G. Johnson and others are of considerable interest from several points of view, both pathological and clinical. But the most striking fact to be elicited from the discussion is that a lung may completely recover after having been compressed against the spine for several days, and even longer. This is in direct opposition to the view currently taught, that the lung is maintained in its expanded condition by the atmospheric pressure on its inner surface, and that if this be neutralised by the same pressure on its outer surface, the lung at once collapses on account of its great elasticity. But such cases as Dr. Johnson's demonstrate that this view is not correct, and show that a collapsed lung may afterwards completely expand. This makes the prognosis of such cases far more hopeful, and justifies active therapeutic means, such as tapping, for it holds out the prospect of being able to extract all the air from the pleural cavity, and at once allow the expansion of the lung. The most important bearing of these facts, however, is upon the treatment and results of cases of pleuritic effusion. They suggest inquiry as to the reason why a lung does not fully expand after compression by fluid as it does after compression by air. Evidently, the physical results of the pressure are the same in the two cases, and there is the same natural tendency to lung expansion in the one case as in the other. What, then, is the hindrance? The explanation is to be found in the fact that in cases of fluid effusion there is inflammatory thickening of the pulmonary pleura; and if the lung is compressed for any length of time the inflammatory tissue organises into fibrous bands, binding the lung down to the spine, and preventing the subsequent complete expansion of the lung. If this is correct, physicians have a strong additional inducement to submit cases of pleurisy to surgical treatment quite early, before these adhesions have formed. For it cannot be too strongly insisted upon that the mere absorption or removal of the fluid does not constitute the cure of pleurisy; that is only accomplished when, in addition, the compressed lung has expanded to its former size. There is now clear evidence that such results are theoretically attainable if only active measures be adopted at a sufficiently early period in the disease. At any rate, it is to be hoped and expected that more correct views of the physiology of respiration will quickly be followed by improved results in treatment.

VENTILATION OF THE CHANNEL TUNNEL.

IF the military authorities should be able to overcome their manifestly absurd fears of invasion by the Channel Tunnel, that engineering work will be an immense boon to Europe, by bringing Great Britain into closer relations with the Continent. The question of ventilation is next in importance to that of construction. That the feat of conveying pure air into the submarine passage may be accomplished there can be no question, but the cost of maintaining the ventilation in a state of purity by ordinary means will be enormous. We would strongly advise the promoters of this undertaking to seek the assistance of Dr. Neale, who has made the subject of ventilation a special study, and who has already published suggestions for a method which will be peculiarly applicable to the Channel Tunnel, and should be adopted at the outset with a view to its adaptation and development as the work proceeds. It must not be assumed that it will be time to think of this matter hereafter. As a matter of fact, the success of the undertaking, in a commercial sense, depends mainly on the certainty of the tunnel being well supplied with oxygenated air, its atmosphere at the same time being properly depurated.

THE DEATHS AT DAIRYCOATES.

THE mysterious death of two children at Dairycoates, near Hull, remains a mystery still, in spite of an inquest, repeatedly adjourned, and of an examination of the contents of the stomach by the county analyst. The symptoms—intense gastric irritation, vomiting and convulsions—and the post-mortem appearances seemed compatible only with an irritant poison and it was suggested, as we mentioned in alluding to the opening of the inquest, that the deaths were due to the children having in some way got access to poison for vermin. Of this, however, no evidence could be obtained. The theory put forward by one of the medical witnesses, that poisoning by sewage gas was the cause of the symptoms, seems very improbable, and was disregarded by the jury, who ultimately returned a verdict that death was the result of some irritant poison, the nature of which there was no evidence to show. The circumstances disclosed by the inquest are, however, very discreditable to the medical practitioner immediately concerned, Mr. William Jackson of Boulevard, Hull, who received a severe censure from the jury. The children were attended in the first instance by a chemist named Cartwright, of course unqualified, and of whose capacity sufficient evidence is afforded by his opinion that these children, presenting the clearest symptoms of irritant poisoning, "were suffering either from suppressed scarlet fever or from worms"! This man alleged that he was assistant to Mr. Jackson; but the facts of the connexion, which were elicited by the coroner with great difficulty on account of the

repeated contradictions and equivocations, seem to be that Cartwright visits all patients to whom he is called, and, if the cases appear to him to be grave, calls in Mr. Jackson; or if he does not consider this necessary, attends them himself, and may not even inform Jackson of his visits. At the end of each quarter Cartwright's receipts are divided between himself and Jackson. This is not assistantship; it is partnership. For medical men to employ unqualified assistants is discreditable enough and dangerous to the public, but what are we to say of a medical man who makes an unqualified chemist his partner, and throws over the illegal practitioner the protection of his countenance and support.

THE PATHOLOGY OF PNEUMONIA.

PATHOLOGISTS have long been struck with the points of close analogy between croupous pneumonia and acute specific diseases, and especially with the resemblances between its clinical history and that of erysipelas. The dependence of the latter disease on a microscopic organism was demonstrated by v. Recklinghausen and Lukomsky, and has been corroborated by many subsequent observers, especially by Koch. Several investigators have endeavoured to find, in cases of acute pneumonia, a similar pathogenic organism. Klebs discovered spherical monads in the contents of the bronchial tubes and in the fluid of the cerebral ventricles; Eberth has described ellipsoidal micrococci in the infiltrated lung and inflamed pleura and pia mater in a case of pneumonia complicated with meningitis; while Koch observed similar organisms in the lungs and kidneys in a case of pneumonia following relapsing fever. The most recent investigations on this point have been carried on by Friedländer, of Berlin, who has discovered organisms in every one of eight cases which he has carefully investigated. The search was made in the fibrinous effusion in the bronchial tubes, and in sections of the lung tissue and inflamed pleura, hardened in alcohol. The micro-organisms found were almost constantly of similar size and form, ellipsoidal micrococci, a micro-millimetre in length and one-third less in breadth. Spherical organisms were also seen, some apparently really such, others evidently the oval bodies viewed endways. They were uniform in substance, slightly refracting, and coloured deeply by the aniline reagents. Their usual arrangement was in pairs, but in some cases they formed long chains, and in the bronchial exudation they were spread out in a film. An aggregation in colonies was seen only in the interior of the lymphatic vessels. Their abundance within the alveoli was remarkable; thousands were counted within a single air-cell in the stage of red hepatisation. As a rule they could not be seen within the walls of the alveoli, bronchi, or vessels, but in one case numbers were observed in the lymph-spaces of the interstitial connective tissue, which was œdematous, and in the lymphatic vessels, which presented swelling of the endothelium, within the cells of which the organisms were also seen. This lymphatic infiltration has, Friedländer believes, a special significance. The micrococci in the bronchial exudation may possibly be connected merely with changes in the necrotic material, but this explanation can scarcely hold good of their presence in the fibrinous contents of the alveoli; since the lymphatic changes, in the case alluded to demonstrate that the micrococci may pass into the current of the circulation, and develop in the living tissues. The changed lymphatics were actually visible to the naked eye as white threads. Although the alteration was found in one case only, this was a typical example of the so-called croupous pneumonia. Moreover, the organisms were found in the tissue of the inflamed pleura in almost every case; abundantly in the œdematous tissue of old adhesions, and their presence here has the same significance as the lymphatic infiltration. Are these organisms the cause of the pneumonia? To this question, Friedländer observes, anatomical investigation cannot alone give a certain answer. The theory is favoured by the above-mentioned consideration and the analogy between pneumonia and some other acute infectious diseases. Its frequent occurrence as a result of exposure to cold constitutes, however, a difficulty in accepting this theory of its causation, which is scarcely lessened by an hypothesis advanced by Friedländer, that the organism may undergo certain stages of its development at a low temperature. It would seem more probable that blood changes induced by cold may set up local inflammation, in which the organism finds conditions favourable for its development, and that its presence may thus be a secondary, and not a primary, element in the pathology of the disease.

ANOTHER DEATH UNDER CHLOROFORM.

NOTICE has been forwarded to the Coroner for Central Middlesex of the sudden death of a gentleman from Manchester, who died at the Surgical Home, Fitzroy-square, on the 22nd ult. It appears that the patient came to London on Feb. 20th, having previously consulted Mr. Lister, for the purpose of undergoing an operation in respect of a lumbar abscess, from which he had been suffering. The deceased was about to be operated upon by Mr. Lister, and was being placed under the influence of chloroform by Mr. Watson Cheyne, when he suddenly expired from its effects, although every effort was made to resuscitate life. The deceased gentleman is stated to have been twenty-seven years of age. A certificate of the cause of death, stating primarily "chronic abscess of the abdomen," secondarily, "the effects of chloroform," was taken to the district registrar, who declined to register and communicated with the coroner. In the meantime, however, the body having been removed to Manchester, the necessary information has been forwarded to the coroner for that city. A post-mortem examination showed that the heart of the deceased was quite healthy.

COFFEE.

AN interesting and most important document relating to the consumption of coffee in the United Kingdom has recently been issued by Mr. H. Pasteur, of Mincing-lane. It appears that in 1847 and 1848 duty was paid upon over 37,000,000 lb. of coffee for home consumption, and that during the past year, with an increase of population on 1848 of at least 10,000,000, the home consumption of coffee was just under 32,000,000 lb. There can be no doubt that the consumption of "coffee" (the inverted commas are very necessary) is much more general now than it was in 1848, and that the consumption of genuine coffee has fallen off to the extent of 5,000,000 lb. is a startling fact which every purchaser of coffee should take to heart. The consumption of spurious coffee is likely to increase still more, for a Treasury Minute was issued, on January 20th, 1882, directing Her Majesty's Board of Customs to permit the importation under a duty of 2*d.* per lb. of "*Coffee, chicory, or any other vegetable matter applicable to the uses of coffee or chicory, roasted or ground, mixed, without reference to the proportions of the mixture.*" Those who like to know what they are buying will do well to buy their coffee whole and raw, and to roast it and grind it for themselves. Coffee contains an alkaloid, *caffeine*, and certain aromatic principles which give to it its stimulating and pleasant qualities, and the larger or smaller proportions of which in the various samples imported determine the market value. It certainly seems odd, to use the mildest term, that the importation of chicory, turnips, carrots, cabbage-stalks, and various other vegetable

rubbish which our continental neighbours choose to roast and send to us, should be encouraged by the Government, to the detriment of the dietaries of the masses, and the business of colonial merchants who have a soul above vegetable refuse. It seems little short of disgraceful that the fine coffee of Ceylon should find a readier market on the Continent than in the parent country, the good people of which are about to turn (as some appear to think), from the drinking of adulterated alcohols to the consumption of still worse adulterated "coffee." One well-known firm that deals in coffee incites the British public by its advertisements to "call a spade a spade"—a wholesome doctrine, and we trust it will soon be penal to apply the name of coffee to anything but the genuine article; for it is not well that the public should pay 1*s.* 4*d.* or 1*s.* 6*d.* per lb. for materials which are dear at a quarter of that price. We have heard much in times past of a "free breakfast table"; we hope soon that it may become an unadulterated breakfast table, and that those who have a fancy for drinking decoctions of strange things will be able to do so without the expense of having the name of coffee given to whatever may happen to be able to impart to boiling water a brownish colour and a bitter taste.

CAMBRIDGE LOCAL EXAMINATIONS.

THE Senate of the University of Cambridge have assented to the proposal of the Local Examinations Syndicate, mentioned in our last number, to hold one of their examinations in September, for the purpose of meeting the requirements of intending medical students who desire to pass at that time the Preliminary Examination required by the Medical Council; and for the further purpose of accommodating students going up to the University in October who desire before doing so to free themselves from the necessity of passing the Previous Examination of the University, by obtaining through the Local Examinations the certificates which exempt them from the Previous Examination. It now remains only for the Syndicate to determine in what towns the September examinations shall be held, and to make the requisite arrangements.

"VIVISECTION, ITS PAINS AND USES."

THE current number of the *Nineteenth Century* contains three articles under the above heading, which are intended to conclude the series that has appeared in this magazine. The first article, by Sir William Gull, discusses the ethics of vivisection; the second, by Mr. George Fleming, president of the Royal College of Veterinary Surgeons, considers the benefits that have been conferred upon animals themselves through experiments upon their kind; the third, by Dr. Lauder Brunton, treats of the uses of vivisection in enabling physicians to relieve disease. Sir William Gull sums up the ethics of experiments upon living animals, or vivisection, thus: "Human life and the relief of human misery are objects which justify the infliction of pain upon animals, provided always that the suffering be no more than is necessary for the ends in view." As to the accusation of cruelty, Sir William pertinently remarks that "nothing is so cruel as ignorance." Mr. Fleming, in describing the modes by which experiments on living animals have so enlarged and corrected our knowledge of many contagious and infectious diseases, both in man and animals, that we are enabled to use with certainty prophylactic measures against them, rightly observes: "The pains inflicted by the experimental pathologist are those of disease, the effect of vivisection, but not the operation itself." Dr. Lauder Brunton, in a temperate and well-reasoned article, gives a long list of remedies, the properties of which have been discovered by experiments on animals—such as strychnia, digitalis, carbolic acid, physostigma, chloral hydrate, nitrite of amyl, &c.; and states that practically every important addition since 1864 to the remedies used to prolong human life and alleviate human suffering has been made by the help of experiments. He concludes by hoping that, when once the merits of the case are thoroughly understood, not many will be found to oppose the demand that competent men shall not be hindered in forwarding the progress of the healing art by one of its most indispensable means. Much as we should welcome this consummation, we are not so sanguine as Dr. Brunton as to its speedy attainment.

JUMBO.

A GREAT deal of nonsense has been written about Jumbo, the colossal elephant so familiar to visitors at the Zoological Society's Gardens in Regent's-park. The Council have not acted without good grounds in selling the animal, and particularly in selling him to Mr. Barnum. It was not easy for the Zoological Society to assign their real reasons—or at least, they seem to have thought so—and hence they have talked of "madness." As a matter of fact, there is not the smallest ground for supposing that elephants are particularly prone to insanity. The facts are plainly these: Jumbo showed signs of having arrived at that period of elephant life at which he is liable to periodic paroxysms of excitement, in any one of which he may do mortal injury to those around him. If the Council had not sold the animal, it might very well have happened one day that, while apparently in perfect temper, he should rear on his hind legs, precipitating the cargo of children on his back, and possibly stepping or falling backwards and crushing them, or he might have lashed about him with his trunk, killing some of his little friends, and running a-muck in the gardens. If Jumbo had done this, he would not have been "mad," but enraged with passion. What would have been said about the Council of the Society if this had happened? The very censors who now blame them for disposing of the animal would have charged them with gross carelessness of the public safety, and perhaps crippled the work of the Society in the future. Mr. Barnum has a domestic establishment of elephants in which Jumbo will speedily make himself at home; and, the cause of his excitement being removed, he will be saved the perils of his present isolated position. If those who are now maintaining a silly fancy on the part of the public will only take the trouble to put the case fairly before the friends and admirers of Jumbo, they will see that the happiness of that interesting animal is fully as much at stake where he is as the safety of his visitors and attendants. It is not a question of the strength of any building: that notion is absurd. What Jumbo requires for the next year or two is to live amongst his kind.

RECKLESS CERTIFYING IN CASES OF ALLEGED INSANITY.

THE profession in England will do wisely to be warned by a case which has recently been decided by the Supreme Court of Victoria, mulcting a medical practitioner, who gave a certificate of insanity heedlessly, in the sum of £520. "The certificates were obtained at the instance of a wife, who alleged that her husband had, without cause, made charges against her of improper conduct, and it was said that he was labouring under delusions. The husband was in the asylum for nearly two months, when he was released by order of a justice, after he had taken the evidence of a number of witnesses on the subject. It was contended for the defendant that the plaintiff was labouring under delusions as regarded his wife; that he was insane at the time of his incarceration; but that, even if he were not insane, the defendant had exercised proper care and caution

in examining the plaintiff, and in making inquiries before he signed the certificate as to his lunacy. For the plaintiff it was urged that, even if he was under a delusion, *he was not insane in the sense that he should be sent to an asylum, and that the defendant had not made reasonable inquiries about him.*" We have italicised the words on which stress should be laid. It is not right to jump to the conclusion that because an alleged lunatic does not happen to agree with his friends or his medical examiner on all subjects he must needs be labouring under a delusion. Nor is it right to assume that everyone who labours under a delusion, or what his friends are pleased to call a delusion, is a fit person to be placed in confinement. There is a great deal too much of reckless certifying in this country. It would, we repeat, be well if practitioners were on their guard against the machinations of false friends, and did not afford so many facilities for the hurried removal of excited or eccentric patients to asylums, whence it is difficult for the victim of mistake to make his escape. There is one very common pitfall of which practitioners, both general and "expert," would do wisely to beware. A neurotic constitution is not evidence of insanity; nor can any special conformation of head or physiognomy be reasonably allowed to influence the judgment. The alleged lunatic had precisely the same nervous temperament, the same form, and the same features *before* the period of his supposed insanity that he exhibits when presented for examination. It would be amusing if it were not melancholy to hear and read the nonsense uttered and written on this topic. The manifest absurdity of the use of this class of evidence should prevent reasonable men from giving it a moment's heed.

HOSPITAL SATURDAY v. HOSPITAL SUNDAY.

SOME of the friends of hospitals have gently taken the Bishop of Manchester to task lately for appearing to object to a *Hospital Saturday*, as based on the assumption that there are a great many persons, especially of the working classes, who go to no place of worship at all. We can easily understand that such an assumption gives the good bishop pain. We regret that it should have to be made. But we should regard the friends of hospitals as either very stupid or very blind, if they did not make it and act on it. No living bishop is doing more to bring all classes within the benign influence of the Church than Bishop Fraser, but it must still be admitted that the religion of the working classes—which we are far from denying—does not take the form of church-going, and that any appeal must fail to reach them if delivered only from the pulpit. Instead of abolishing Hospital Saturday, we should recommend its being made a quarterly institution, so as to increase the subscriptions of the working classes to hospitals by which they profit so much and so exclusively.

SHAM DEATH CERTIFICATES.

THE recent Session of the Circuit Court in Glasgow was remarkable for the trial of a case in which an attempt had been made to defraud some Assurance and Burial Societies by means of false death certificates, which unfortunately had been granted by a medical man who had never even seen the person either dead or alive whose death he certified. Lord Young was justly severe in his remarks regarding the part this gentleman had been led to play in the matter. It was explained that the certificates had been given simply from charity, without fee or reward of any kind; that it was to save expense that no visit had been made, and that too implicit confidence had been placed in the honesty of the parties who reported the death. It is to be hoped that such laxity of practice with reference to the filling up of death certificates is not common in the profession.

THE ACTION OF CALOMEL ON FERMENTATION AND ON THE LIFE OF MICRO-ORGANISMS.

A PAPER with this heading appears in the last number of Hoppe-Seyler's *Zeitschrift für Physiologische Chemie*, by N. P. Wassilieff, who, after noting the high estimation in which calomel has been always held in disordered conditions of the bowels, especially in children, points out the absence of any experiments to show or explain the cause of its influence, with one or two exceptions. Voit, indeed, as long ago as 1857, observed that albumen and blood mingled with calomel were capable of being kept for days without any indication of putrefaction, and Hoppe-Seyler made some similar observations; but besides these, few, if any, researches have been made on its action. In M. Wassilieff's experiments, calomel was added to the fluid obtained by acting on albumen with gastric juice, and to that obtained by acting on albumen with pancreatic juice; and he satisfied himself that the albumen-digesting ferment of both these fluids was not damaged by calomel—peptones in the one instance, and leucin and tyrosin in the other, appearing as usual,—but that the presence of this substance prevented the formation of the secondary products, such as indol and phenol. Neither hydrogen nor hydrogen sulphide formed in the fluids containing calomel, whilst they were abundantly produced in the others. In like manner, the author experimented on the effects of calomel on the fat-digesting and the amylolytic ferments of the pancreas, and found that it had no modifying influence upon them, but that it arrested the changes which followed their completion, entirely preventing, for example, the butyric acid fermentation and putrefactive processes. He hence arrives at the conclusion that calomel acts differently on the formed or organised and the unformed or unorganised ferments, permitting the action of the former to proceed unchecked, but completely preventing the action of the latter.

MIDWIVES' MIDWIFERY.

A VERY painful case was the subject of a recent inquest before Dr. Diplock, at the "Dolphin," St. Clement's-road, Notting-hill. It was that of a strong, healthy-looking woman, aged twenty-six, who had been attended by a midwife. The labour lasted about twelve hours. Hæmorrhage, more or less profuse, was allowed to go on all the time, and medical aid was only called in *after death*. Dr. J. D. Miller then, with the hope of saving the child, immediately delivered with the forceps, but the child too was dead. The verdict of the jury was "Death from natural causes, due to flooding." Very naturally some of the jurymen were dissatisfied with the verdict. But the coroner justified it on the ground that the midwife used no force, and in no way injured the woman. The coroner may be right, but it is to be regretted, we think, that the jury did not express its opinion that the midwife was to blame in not sending for medical advice sooner. Surely this might be expected of any midwife, even in the present state of the law. In countries where midwifery is recognised, the midwife is required to send for medical help in emergencies.

THE BRITISH MEDICAL ASSOCIATION AND HOMŒOPATHY.

AT the last general meeting of the Staffordshire Branch of the above Association the following resolution was unanimously passed:—"That it is the opinion of the Staffordshire Branch of the British Medical Association that by-law 3 of the Association be enforced with regard to those who practise homœopathy, whether such persons have been admitted members of the Association prior to or subsequent to their profession and practice of homœopathy."

RELATIVE POWER OF ANTISEPTICS.

THE *Revue Scientifique* (Feb. 4th) contains an abstract of experiments made by M. Jalan de la Croix to ascertain the relative value of various substances in preventing the development or evolution of the microbia of putrefaction. He placed finely divided boiled or raw meat in water, and ascertained the maximum and minimum quantities of each substance that were effective. The figures in the following table indicate the number of grammes of water in which one gramme of the substance mentioned prevents the development of microbia:—

Substance employed.	Maximum dose in which development is not arrested.	Minimum dose in which development is arrested.
Alcohol	30	1·77
Chloroform	134	1
Soda biborate ...	107	14
Eucalyptol	308	14
Phenol	1002	10
Thymol	2229	20
Potash permanganate	3041	35
Picric acid	3041	100
Borated soda salicylate	3377	30
Benzoic acid... ...	4020	50
Etherial oil of mustard	5734	40
Sulphurous acid ...	7534	72
Alum acetate ...	7535	478
Salicylic acid ...	7677	343
Mercury bichloride...	8358	2525
Lime hypochlorite ...	13092	109
Sulphuric acid ...	16782	135
Iodine	20020	410
Bromine	20875	493
Chlorine	34509	431

From which it will be seen that chlorine, the hypochlorites, and perchloride of mercury are very effective, whilst alcohol is comparatively impotent.

THE KILLING OR MAIMING OF PIGEONS.

THIS sport goes on merrily. A very considerable proportion of the poor tame or dazed birds frightened out of the traps are only wounded, and fly away to live wretched lives or die horrible deaths from starvation and the like. But what matters the suffering thus inflicted, without even the thought of a useful purpose! Although the Anti-vivisection Society has no concern with this matter, we venture to think the Society for the Prevention of Cruelty to Animals should stir in aid of its suppression. It is a brutal business, having no relation to true sport, and being a pastime which the law ought to interdict. It is far worse than bull-baiting or cock-fighting, and is even more unfair than rat-killing, because the pigeons have no instinct or power of self-defence. Their mutilation is the grossest and most inexcusable form of cruelty, done from pure wantonness, and in a way that makes the offence heinous in the eyes of even the commonly humane. It is a marvel that no strong expression of opinion against this *pseudo* sport has emanated from the highest and most influential quarter which might be supposed to have some weight with society.

DR. JUNOD.

"JUNOD'S boot" was once familiar as a household word in this country, although little has of late been heard of the ingenious instrument, and probably few practioners who have received their education during the last fifteen years have ever seen it. The inventor of the boot, who has just died in London, was a Swiss by birth. He graduated in 1833 in Geneva, and settled in Paris, where he was well known, not only through his apparatus, but on account of his study of the effects of compressed and rarefied air, and also for his professional devotion, which led him, at threescore and ten, to volunteer for service with the army, and to labour with zeal in the care of the sick and wounded in the army of the East and the Loire.

THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

A VERY effective circular urging the claims of this Society is before us. The friends of missions never did a wiser or a more proper thing than in bringing medicine into alliance with their operations. Few societies of the kind have done so much good as this one, which had for its founder and first president the illustrious Abercrombie, and for its philosophical advocate William Pulteney Alison, and others scarcely less capable of advocating any cause which contemplates the elevation of men and the abatement of sin and disease. The Society assists young men, financially and otherwise, disposed for missionary work. In the past ten years thirty-four students have been educated and trained under the auspices of the Society. Thanks to such societies, there are now upwards of 130 legally qualified physicians and surgeons employed in all parts of the world as the agents of missionary societies, sowing the seeds at once of Christianity and of medical science. Some very interesting contributions to medical art and science have been made by the medical missionaries of our own and of other countries. Such a cause deserves our hearty commendation and support. The treasurer is John Pringle, M.D., Deputy Inspector-General of Hospitals, 27, Rutland-square, Edinburgh.

A MEETING of the Royal Commission on Small-pox and Fever Hospitals was held at No. 3 Committee-room, House of Commons, on Tuesday, the 28th ult. There were present Lord Blachford, Sir James Paget, Sir Rutherford Alcock, Mr. A. W. Peel, M.P., Mr. E. L. Pemberton, M.P., Dr. A. Carpenter, Dr. J. Burdon-Sanderson, Dr. W. H. Broadbent, Mr. Jonathan Hutchinson, and the secretary, Mr. Nathaniel Baker.

WE understand that the Fothergillian Gold Medal awarded by the Medical Society of London to the writer of the best essay on "Whooping cough, its Pathology and Treatment," has been gained by T. M. Dolan, Esq., F.R.C.S. Edin., of Halifax. There were four essays sent in for competition.

To fill a vacancy in the list of "free associates" in the Academy of Medicine, Paris, the committee nominated MM. Foville, Krishaber, Magitot, Mesnet, De Ranse, and Worms. Of these candidates, Mesnet obtained the largest number of votes, and was accordingly elected.

WE are glad to be able to state that Dr. Angus Macdonald of Edinburgh, whose condition lately gave rise to some anxiety, is now quite restored to health, and will soon resume his professional duties.

DONALD M'ALISTER, M.B. Camb., of St. John's College, has been approved as a University Teacher in Medicine in Cambridge University, and Mr. Adam Sedgwick, of Trinity College, as a Teacher in Comparative Anatomy.

THE Royal Hospital for Diseases of the Chest, City-road, has just received a portrait of Dr. Isaac Buxton, at whose suggestion the hospital was started in 1814.

DR. P. H. PYE-SMITH has been elected a Life Governor, and Dr. Angel Money and Dr. Dawson Williams have been admitted Fellows, of University College, London.

AMONGST the latest additions to the Egerton MSS. in the British Museum is a Register of Inquisitiones Post-mortem for Cheshire from Edward III. to Richard III.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Gateshead (population 65,550).—Dr. Charles Green reports for 1881 a death-rate of 20·4 per 1000 population. Zymotic diseases caused a death-rate somewhat less than the average of the country for the last five years, this being held by Dr. Green "for a large urban district as satisfactory." Diarrhœa caused nearly 50 per cent. of all the zymotic deaths. Dr. Green devoted some time in the investigation of this disease in connexion with the inquiry being made on the subject by Dr. Ballard for the Local Government Board. The following conditions, he observes, were found in the respective percentage of cases. Very foul ashpits, 40 per cent.; ashpits, 95 per cent.; houses badly ventilated, 60 per cent.; improper feeding, 25 per cent.; artificial feeding, 60 per cent.; patients previously delicate, 25 per cent. From these facts Dr. Green draws the following conclusions:—1. That although improper feeding is to some extent a cause of diarrhœa, it is not to the great extent supposed. 2. That insanitary surroundings are the principal cause of the disease. 3. That heat is a cause of the disease; thus, of the 82 deaths during the year there were 10 in July, 30 in August, and 10 in September; that is to say, about half the cases occurred in the third quarter of the year—the only time there was any summer. Dr. Green, as well as other medical officers of health, insists upon the necessity of a compulsory notification of disease, if infectious diseases are to be effectually dealt with; he would have more power given for the removal of cases to hospital. He would have, also, the power vested in the sanitary authority to close schools on account of infectious disease. Four deaths from typhus are reported, two being, unhappily, members of the hospital staff, one the matron and the other a nurse. Three other nurses were also attacked with disease, but recovered, one after a long and serious illness. The Gateshead sanitary authority, strange to say, does not possess any apparatus for disinfecting by heat. The system of excrement disposal chiefly adopted in the borough is the midden-privy, with its intolerable nuisance, offensiveness, and filthiness. Of its unwholesomeness the evidence must be superabundant, yet the sanitary authority persist in its use as if any efforts of theirs to amend the health of the population could be other than a sham while this hideous farce of excrement-disposal exists. Dr. Green has some observations on the proximity of the Fever Hospital to inhabited houses, and from his investigations during the year has no reason to believe that the hospital has exercised any injury on neighbouring houses.

City and County of Hereford (Combined Rural and Urban Sanitary Authorities).—Population 79,000. Dr. Vavasour Sandford in his report for 1881 is enabled to show a declension of mortality throughout his combined district, a slow and sure stamping out of zymotic disease in progress, and generally a prospect of fulfilling a promise that he made to the City of Hereford seven years ago, that "before six years your city shall rank as one of the most healthy in the United Kingdom." The death-rate of Hereford last year—namely, 15·4—was the lowest on record he tells us; the birth-rate was 26·8. Dr. Vavasour Sandford claims, not unnaturally, credit for the medical officer in bringing about so excellent an effect upon the death-rate. As a rule we deprecate too hasty conclusions from death-rates. A single fatal epidemic will often reverse apparently well-founded results, but it would be unjust not to concede Dr. Vavasour Sandford's claim on the excellent fruits of his several years' labours.

West Hartlepool.—Dr. Gourley reports for this urban district for 1881 a death-rate of 17·45 per 1000 population, and a birth-rate of 42·3. Scarlatina was the infectious disease chiefly prevalent during the year, and six deaths were attributed to enteric fever, the cases occurring in connexion with polluted wells. The supply of water delivered to the town by the water company is stated to be good and ample, but wells are still extensively in use, and largely polluted. "The wells in most parts of the town," says Dr. Gourley, "are shallow, and in most cases sunk in ballast, and are all in too close proximity to the drains and ashpits to be safe sources of supply. There is the less need to have recourse to this supply, as the water company furnishes an ample and continuous supply of pure water; the only complaint being the price charged." Scavenging is very imperfectly carried out, and instances are found of badly cleansed, filthily kept, and sloppy ashpits. The sanitary authority pay a fee to medical men for notifying cases of infectious disease coming under their observation to the medical officer of health or inspector of nuisances, and although all medical men have not fallen into the plan, the medical officer of health has derived material assistance from those who have agreed to meet the wishes of the sanitary authority in this respect.

Lewes.—This borough, which was formerly under three separate sanitary authorities, has by its incorporation become happily united under one. Mr. J. G. Braden congratulates the corporation on this change in the sanitary administrative efficiency in the town. The area of the sanitary district is stated at 1011 acres, and the population, according to the recent census, at 11,190. Mr. Braden reports for 1881 a death-rate of 14·3 per 1000 population, and a birth-rate of 26·9. He says: "The health of the town is now, and has been for some time past, in a very satisfactory state. Our death-rate last year shows a marked decrease. Food is plentiful, good, and moderate in price; the labourer finds no great lack of employment at fair wages; and, in an agricultural district such as this is, should the present year prove good, not much cause of complaint need be felt."

Lichfield, Rural (area 58,349; population, 1881, 22,381).—Dr. Monckton reports for this district in 1881 a death-rate of 15·54 per 1000 population, and a birth-rate of 32·57. Twenty-five deaths were caused by the principal zymotic diseases, chiefly from scarlet fever. Ten fatal cases of epidemic membranous croup were also recorded. Dr. Monckton advances reasons for retaining that name and for discarding the term diphtheria. The report is instructive as showing how closely the cases of infectious disease were followed up by the medical officer of health, and how, in conjunction with the medical men in attendance upon the cases, the aid of the sanitary authority was brought to bear in checking the diffusion of an infectious disease and remedying local sanitary defects. In this respect Dr. Monckton's mode of procedure deserves especial commendation.

Shrewsbury.—Dr. Thursfield reports for this borough during 1881 a death-rate of 17 per 1000 population, as compared with an average of 20·9 for the seven years 1874-80, and with an anticipated death-rate by the "Healthy District Life Tables" of 16 per 1000. "I ventured in a previous report," he says, "a belief that one might anticipate for Shrewsbury a death-rate not much exceeding 17 per 1000; it is therefore satisfactory to be able to state that the mean death-rate of the last two years 1880 and 1881 is 17·2, or a very near approach to the above." Writing of infantile mortality in his report for 1877, Dr. Thursfield observes: "Allowing a margin for the influence of aggregation apart from local surroundings, I see no reason why Shrewsbury might not aim at an average death-rate of young children of very little over 10 per cent. of births; and I believe that this result may be obtained by the provision of a plentiful supply of pure water, the structural reform of courts, &c." "It is therefore most satisfactory," he adds, "to be able for the past year to record a mortality under this heading of nearly exactly 10 per cent., especially as, although much influenced by local surroundings, infantile mortality chiefly depends upon a variety of circumstances, social, personal, and domestic." Under the heading of zymotic disease Dr. Thursfield is able to record the "best return" that he has ever been called upon to give for the borough, comparing favourably not only with previous years but also with the returns for England and Wales. The following observations on infectious disease deserve quotation:—"With increasing success in the isolation of infectious disease (which as a rule attacks the individual once in a lifetime only) it is specially necessary to be mindful of the fact that there is increased necessity for stricter precautionary measures, as there are a larger number of children liable to take disease if brought in contact with the infection, although owing to improved sanitary conditions and surroundings, children may be expected to (as indeed I believe they do as a rule) suffer less severely when attacked. This brings us in contact with another most practical and tangible danger to be guarded against, as it is chiefly through mild unattended and unrecognised cases that those diseases which spread through personal contact with infection are disseminated by

schools. Isolated outbreaks of infectious disease may always be looked for, at least for a time, either from direct importation or from revival of old germs, but absence of epidemics of such diseases as measles, scarlet fever, diphtheria, whooping-cough, &c., can only be looked for provided the danger of their spread through school agency be sufficiently appreciated and guarded against. There are other diseases which, although less dangerous to life, children compelled by law to attend school should be equally guarded against, and on one occasion during the past year I was glad to obtain the closure of a school on account of the evident dissemination of ophthalmia in the school."

Dublin.—The deaths within the municipal area during the four weeks ending January 28th, amounted to 765, being in the annual ratio of 39·75 per 1000. Zymotic diseases caused 182 deaths, there being an increase in the admissions into hospitals of patients suffering from typhus, scarlatina, and measles. The death-rate for the month was very high, but shows an improvement as compared with the corresponding month of last year. The high mortality was principally due to the serious epidemic of measles, which caused 141 deaths out of a total of 182 caused by all zymotic diseases; and excluding this disease, the deaths from all other causes were below the average mortality of the first four weeks of the past ten years. Dr. Cameron points out the difficulty of inducing the mothers of very young children to allow the latter, when suffering from infectious disease, to go into hospital, and suggests that it would be desirable to provide wards into which both mothers and their children could be admitted during epidemics.

The *London Gazette* of Feb. 28th declares the 90th section of the Public Health Act, 1875, which relates to houses let in lodgings, to be in force in respect of Benwell and Fenham, Northumberland, and of Croydon, Surrey.

It is stated that the epidemic of small-pox, which recently made its appearance at Armley gaol, Leeds, continues to spread, and that another prisoner died on Wednesday.

The Port of Aden and other ports of the Gulf of Aden have been declared by the Portuguese Government to be free from yellow fever.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 6056 births and 4118 deaths were registered during the week ending the 25th ult. The annual death-rate in these towns, which in the two preceding weeks had been so high as 29·8 and 26·4 per 1000, further declined last week to 25·4. The lowest rates in these towns last week were 16·2 in Cardiff, and 17·5 in Birkenhead, Huddersfield, and Halifax; the rates in the other towns ranged upwards to 30·9 in Blackburn, 31·0 in Preston, 36·2 in Bolton, and 40·5 in Brighton. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 639, showing a slight increase upon the number in the previous week; 264 resulted from whooping-cough, 148 from measles, 101 from scarlet fever, 58 from "fever" 33 from diarrhœa, 22 from diphtheria, and 13 from small-pox. No death from any of these diseases was recorded last week in Derby; whereas they caused the highest death-rates in Brighton, Bolton, and Blackburn. Whooping-cough showed the largest proportional fatality in Brighton and Wolverhampton; scarlet fever, in Hull and Nottingham; measles, in Brighton, Blackburn, Norwich, and Bolton; and fever in Blackburn and Oldham. The 22 deaths from diphtheria in the twenty-eight towns included 13 in London, and 3 in Portsmouth. Small-pox caused 9 deaths in London and its suburban districts, and one each in Nottingham, Liverpool, Bradford, Leeds, and Hull. The number of small-pox cases in the metropolitan asylum hospitals had further declined to 436 on Saturday last; the new cases of small-pox admitted to these hospitals, which had declined to 67 in the previous week, rose again to 89 last week. The deaths referred to the respiratory diseases in London, which had been 994 and 769 in the two preceding weeks, further fell to 545 last week, but exceeded the corrected weekly average by 56. The causes of 95, or 2·3 per per cent. of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·4 per cent. in London, whereas it averaged 3·1 in the twenty-seven provincial towns. All the causes of death were duly certified in Brighton, Portsmouth, Norwich, Plymouth, Bristol, Wolverhampton, Birkenhead, Halifax, and Cardiff; while the proportions of uncertified deaths were largest in Salford, Bolton, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·7 and 23·7 in the two preceding weeks, further declined in the week ending the 25th ult. to 22·6, and was 2·8 below the average rate in the large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 104 and 79 in the two previous weeks, rose to 85 last week; of these, 24 were attributed to diarrhœa, 16 to diphtheria, 16 to whooping-cough, 11 to measles, 11 to "fever," and not one to small-pox. The annual death-rate from these zymotic diseases was 0·4 below the mean rate in the twenty-eight English towns. The highest zymotic rates in the Scotch towns occurred last week in Glasgow and Perth. The deaths referred to diarrhœa in the eight towns were equal to a rate very considerably exceeding that which prevailed in the English towns. The 16 fatal cases of whooping-cough showed a considerable decline from recent weekly numbers. Of the 16 deaths from diphtheria, 11 occurred in Glasgow, 3 in Edinburgh, and 2 in Greenock, while measles showed the largest proportional fatality in Perth. The 11 deaths from "fever" were equal to a death-rate considerably in excess of that recorded in the English towns; 5 occurred in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The reported deaths from acute diseases of the lungs in the eight towns were 34 below the number in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 33·6 and 36·9 per 1000 in the two preceding weeks, declined again to 33·6 in the week ending 25th ult. During the first eight weeks of the current quarter the death-rate averaged 35·3, against 26·9 in London and 19·8 in Edinburgh. The 224 deaths in Dublin showed a decline of 22 from the number in the previous week; 39 were referred to measles, 3 to "fever," one each to scarlet fever, diphtheria, whooping-cough, and diarrhœa, and not one to small-pox. The annual death-rate from these principal zymotic diseases was equal to 6·9 per 1000 in the city; the death-rate from the same diseases was 4·3 in London and 2·7 in Edinburgh. The fatal cases of measles, which had been 23 and 33 in the two previous weeks, further rose to 39 last week, and averaged 36 in the first eight weeks of this year. The 6 deaths from "fever" showed a decline from recent weekly numbers, and the deaths from other zymotic diseases were also less numerous. The deaths both of infants and elderly persons also showed a decline.

HEALTH OF BELGIAN TOWNS IN 1881.

As a supplement to his weekly return for Brussels, Dr. Janssens, the chief medical officer of that city, has just issued a summary of the mortality statistics for 1881 of all the towns in Belgium having a population exceeding 2000 persons. In Brussels (including suburbs) the death-rate during the year was equal to 23·9 per 1000, against 21·2 in London and 28·6 in Paris. In addition to Brussels, there appear to be three Belgian cities having a population exceeding 100,000 persons; in these the death-rate last year was equal to 20·8 in Liège, 23·4 in Anvers, and 25·7 in Gand. In sixty other Belgian towns the population ranges from 48,431 in Bruges, to 2841 in Waremme. As might be expected, in so long a list of small towns, the death-rate ranged widely, the two lowest being 14·8 and 16·0. In only four of the towns did the rate exceed 28 per 1000; the highest rate being 30·7 in Verviers, the population of which is given as 41,256. The high death-rate in Verviers is shown to have been mainly due to a severe epidemic of small-pox, which caused 248 deaths during the year, equal to a death-rate of 6 per 1000 of the population. Small-pox appears from this return to have been somewhat prevalent in Belgium during last year, as 712 fatal cases were recorded in its principal towns, and 464 exclusive of Verviers. Dr. Janssen's excellent summary would be much improved by the addition

of a total line for the whole of the Belgian urban population; the statistics for the aggregate of this population would serve as a useful standard of comparison for the individual towns. The aggregate population of the sixty-four towns, exclusive of Brussels, appears to be a little more than a million and a quarter, among which the average death-rate was equal to 24·3, and thus somewhat exceeded the rate in Brussels and its suburbs.

THE ROYAL COLLEGE OF PHYSICIANS.

AT a meeting held at the Royal College of Physicians, London, on Thursday, the 23rd ult., a complete revised edition of the By-laws and Regulations of the College was submitted to the fellows for consideration and approval. Many of the regulations, being of a permanent character, are now incorporated with the by-laws. The following are the principal alterations proposed:—1. Examiners are made re-eligible during four years instead of three. 2. The standing counsel and solicitor of the College, instead of being appointed by the President, shall be in future nominated by the President and elected by the fellows. 3. That with regard to the examination for the Membership of the College, candidates who have obtained a degree in Arts of some university of the United Kingdom, India, or of a British colony, will not in future be examined in Latin; those, however, who have not a degree in Arts, will be required to satisfy the Censors' Board as to their knowledge of Latin and Greek, or of Latin and one of the modern European languages. 4 Candidates for membership not having a degree in medicine, or who are not specially exempted by the College as being over forty years of age, shall be required to pass the examinations for the Licence of the College. 5. Students who commence their medical studies after the 25th day of March, 1882, shall not be admitted to the Third or Final Examination till the expiration of two years after they have passed both the First and Second Examinations. 6. It is also recommended that the subject of Therapeutics be added to those comprised in the Final Examination, in lieu of Morbid Anatomy. Attention is drawn to two important resolutions, which have been passed by the College, and which, although they have not the force of a by-law or regulation, it is desirable should be loyally observed. The first refers to the assumption of the title of Doctor by any fellow, member, or licentiate of the College who is not also a graduate of medicine of a university; the other, which calls upon all the fellows, members, and licentiates to discountenance those who assume designations implying the adoption of special modes of treatment. We have looked in vain, however, for the resolution with regard to the undesirability of fellows of the College advertising their works in the lay press.

LONDON SANITARY PROTECTION ASSOCIATION.

THE first annual general meeting of this Association was held at the Society of Arts, which is directly opposite the offices of the Association, in John-street, Adelphi, on the 25th ult. Professor HUXLEY, President of the Association, took the chair, and read the annual report, which stated that at the end of 1881 the Association had 192 members, 22 of whom are medical men, who had become members in respect of their own dwelling-houses. The reports of Mr. Burton, the president engineer, showed that 6 per cent. of the houses inspected during the year were absolutely pestiferous. In a much larger proportion of cases of inspection, in more than two-thirds of the whole, there were, it appeared, general defects in the drainage arrangements. He moved the adoption of the report and balance-sheet.

Mr. TIMOTHY HOLMES, the honorary treasurer, in presenting the balance-sheet, which showed a balance in hand of £74 at the end of 1881, said that in the first two months of 1882 forty-two new members had joined, and only two of the old members had left the Association, so at the moment of speaking the Association numbered 232 members, and had a balance of £100 in the bank.

Professor FLEEMING JENKIN, as one of the consulting engineers, said the work of the Association, as carried out by Mr. Burton, had been most satisfactory. He had been surprised at the bad state of London houses, which compared unfavourably with the state of houses in Edinburgh. If it were generally realised what was meant by 6 per cent. of the houses inspected being found in such a bad state, John-street, Adelphi, would be blocked with the crowds of people hurrying to join the Association. As a proof of the usefulness of such an association as this, he might tell them that during the present typhoid fever epidemic in Edinburgh there had been but one case among the houses under the care of a kindred association, and that was contracted through visiting some very poor people, so that practically members were safe from infection. He would suggest to the editors of the technical and scientific papers that they could not better serve their readers than by establishing "test cases," joining the Association themselves, or causing a friend to do so, without letting the officers of the Association know who they were, and when they obtained their report telling their readers what they thought of it.

The adoption of the report and balance-sheet was seconded by Sir WILLIAM TYRONE POWER, who called special attention to the advantage to proprietors of hotels and lodging-houses of possessing a certificate from the engineer of the Association framed and hung up in some conspicuous position, and having been supported by Mr. E. C. ROBINS, architect, and Dr. LAUDER BRUNTON, both of whom gave practical instances of the usefulness of this Association, was carried unanimously.

It was announced that, after a ballot among the members present, the whole of the outgoing members of Council were re-elected unanimously, with the addition to their number of Dr. John Macpherson, Surgeon-General Munro, and Dr. Allen Thomson. The usual votes of thanks having been carried unanimously, the meeting adjourned.

WILLS AND BEQUESTS.

THE will of John Flint South, F.R.C.S., of No. 7, Mordon-road, Blackheath-park, who died on January 8th last, was proved on the 11th ult. by Mrs. Mary Ann Emma South, the widow and sole executrix, to whom he gives and bequeaths all his property and effects, whatsoever and wheresoever, for her own use and benefit. The value of the personal estate amounts to close upon £6000.

The will of Andrew Wood Baird, M.D., of Dover, who died on January 10th last, was proved on the 16th ult. by the Rev. James Baird, the brother and one of the executors, the value of the personal estate amounting to over £3600. The testator leaves all his real and personal estate upon trust for his children in equal shares.

The will of Michael Coote, M.D., of Ashby-de-la-Zouch, Leicestershire, who died on November 17th last, was proved on the 17th ult. by Mr. E. F. Mammatt and the Rev. A. S. Mammatt, the executors, the value of the personal estate being about £3000. The testator gives legacies to his mother, his sisters Mary Ann and Bridget, and to his executors; and the residue of his property between his four brothers, Patrick, Edward, Charles, and Frank.

The will of Henry John Gore, M.D., of Wyvenhoe, Essex, who died on January 2nd last, at Tonbridge Wells, was proved on the 13th ult. by Miss Elizabeth Mary Gore, the daughter and sole executrix, the value of the personal estate being £1300. The testator gives all his property to his daughter.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Henry Spence Fairfoot of Clement's Inn and Woburn-square, £100 each to the North London or University College Hospital, the Royal Free Hospital, the Hospital for Women, Soho-square, and the Bloomsbury Dispensary.——Mr. James Yates, J.P., D.L., of Oakwood Hall, Whiston, Yorkshire, £500 to the Rotherham Hospital and Dispensary.——Mr. John Gray, formerly of Wheatlands, Bolton-le-Moors, Lancashire, but late of Claygate, Thames Ditton, Surrey, £500 to the Bolton Infirmary and Dispensary.——The Council of the Royal Hospital for Diseases of the Chest, City-road, have recently had notice of four legacies, all of which will become payable shortly — viz., from Mr. William Ward £100; from Mr.

Edward Cushee £500 Consols; from Mr. Osgood Torkington £1000 Consols; and from Mr. William Slocombe £400 —— Mr. Osgood Torkington, of Clapham-park, bequeathed £1000 in Consols to the Royal Hospital for Children and Women in the Waterloo-road and £2000 Consols to the Royal Albert Orphan Asylum.——The managers of the Royal Infirmary of Edinburgh have received from Messrs. J. C. Brodie and Sons, W.S., Edinburgh, the sum of £13,500 for the funds of the institution from the estate of the late Dr. Thomas Hunter, Deputy Inspector-General of hospitals.

THE SERVICES.

The Queen has approved the transfer to the half-pay list of the Indian Medical Service of Surgeon Alfred John Wall, Bengal Medical Establishment.

Surgeon-Major John Law, M.D., of the Bengal Army, has retired from the service.

Surgeon-Major John Murray, M.D., of the Madras Army, to be Brigade Surgeon.

ADMIRALTY.—Fleet Surgeon Arthur M'Kenna has been appointed to the *Unicorn*, vice W. Richardson.

Correspondence.

"Audi alteram partem."

INFECTIOUS DISEASE NOTIFICATION BILL.

To the Editor of THE LANCET.

SIR,—The compulsory notification of infectious disease will soon become law, and it depends very much on the medical profession whether a piece of legislation which in the abstract has their cordial concurrence shall become an intolerable tyranny.

It is proposed by Section 3 of the Bill now before Parliament to make the medical attendant primarily responsible for the notification of every case of infectious disease he may be called upon to attend, to the sanitary authority, under a penalty in default of £5.

The confidence which exists between the public and their medical attendant is proverbial; its sacredness is recognised, and even upheld by courts of law, and yet here is a Parliamentary enactment which will entirely break down the tradition.

I would ask what other profession, or even trade, has had its operations interfered with in the way in which it is proposed to deal with the medical profession by this Bill? There is nothing comparable to it. There are, it is true, certain laws relating to and regulating trades, but these deal immediately with the interest of the persons who are likely to be affected by anything injurious in the conduct of those trades. Such laws do not put the onus of giving information respecting any breach of the law on a third person who is not immediately concerned—the representatives of various trade-interests in the House of Commons would have taken good care of that—but because the medical profession is not adequately represented, if it can be said to be represented at all, in Parliament, this measure so deeply affecting the relations of the medical man and his patient will, unless a decided stand be made *ab extra*, be passed into law. Already a large number of cases of infectious disease have, for various reasons, no medical attendant, and I believe that the number will increase if this law requiring the medical attendant to report on the infectious diseases in a household is passed.

The Bill, in Section 4, provides for the occupier, or person in charge, giving information to the sanitary authority where no medical man is in attendance. Why, in the name of common sense, cannot this be made the rule in all cases? There is a clause in the Irish Infectious Disease Notification Bill which provides that the medical attendant shall certify to the occupier of the house or person in charge the nature of any infectious disease he may be called upon to treat. This, I maintain, is all that is necessary or reasonable to expect from the medical attendant. It gives the person in charge no excuse for breaking the law, and throws the responsibility of giving information to the sanitary authority on the proper person. This is essentially a registration of infectious disease. Why should the duty of registering be put on the medical attendant any more than the registration of a birth or death?

I am not unmindful that Section 5 provides for the payment of a small fee to the medical practitioner forwarding a certificate, "provided that not more than one fee shall become payable to the same medical practitioner for any certificate given by him in respect of any infectious disease occurring in the same building within thirty days of the date of the said certificate." The fact of this "remuneration" does not affect the principle. It might as well be expected that because the public vaccinator is paid for vaccination by the State, that he is to be held liable, under a penalty of five pounds, for allowing any case in his district to go unvaccinated. Indeed, some such move may be expected if this Bill passes in its present form. I should like to ask, What possible right has any Government to demand information respecting the home life of any individual from a third person? Is it because the medical profession owes the State "the most in money and in love"? Does the medical profession receive such recognition of its services as to render it under obligations which it might wipe off by an abrogation of its rights, and of that confidence which exists between doctor and patient? The answer is, that its pioneer in preventive medicine received the very inadequate reward of a C.B. and nothing more, that the president of our College of Physicians is sometimes knighted, and that possibly some other member of our profession who may have added to our singularly ugly public monuments, and have done anything else not strictly medical, may receive a similar reward.

Of the great importance of a compulsory notification of infectious disease there can be no question, but let the persons who are directly interested be held responsible, and on the public alone let the duty devolve of reporting to the sanitary authority whenever infectious disease is certified by their medical attendant to be among them.

If the circumstances of the case demanded that the medical profession should forego any of its rights and privileges, I have no doubt that with its admitted usefulness it would be ready to do so; but there is no reason whatever that, for the purpose of making the Infectious Disease Notification Act a most complete and useful measure, the relations of the profession with the public should be so altered as the Bill in its present form proposes.

I hope, Sir, that you will use your influence to get Section 3 struck out, and to have Section 4, modified, as it is in the Irish Bill, substituted for it.

I am, Sir, your obedient servant,

C. E. SAUNDERS, M.D.

Lower Seymour-st., W., Feb. 27th, 1882.

ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—With the majority of surgeons I have, for the last two years, allowed myself to drift with the ether tide. I have, however, during that period seen enough of the dangers and inconveniences of its administration to convince me that immunity from mishap is not to be found in ether. Its inconveniences are manifold. It is so painfully irritating to the patient that the necessity arises for commencing the inhalation either with gas or chloroform. It increases the salivary secretion to such an extent that its use is excluded in all operations about the mouth and jaws. The taste and smell remain with the patient for very many hours, and the operator himself becomes impregnated with its odour, and is an offence to himself and his patients for the rest of the day. But one would condone all these offences if it could be proved that the danger of inhaling ether was next to nothing. Is this so? Case after case of death from ether is cropping up, and we hear little or nothing of the hair-breadth escapes attendant on ether administration. I myself, a short time ago, as nearly as possible, lost a patient. I was endeavouring to reduce an old-standing dislocation of the humerus at the South Devon Hospital. Ether was given by the house-surgeon, who has had considerable experience in its administration, and he gave it through "the very last" newly invented inhaler. The

man, to all intents and purposes, died, and it was with the utmost difficulty that we pulled him back again to life. This for me was the last straw, and I resolved to banish ether from my hospital practice as I had already done from my private work. But it is not my only object in writing this letter to abuse ether. I wish to recall the attention of surgeons to an old and neglected anæsthetic, methylene. I believe methylene given through Junker's inhaler to be the anæsthetic that most nearly approaches perfect freedom from danger. I have for many years constantly used it in this way, and I cannot call to mind a single case in which I have had even a passing anxiety for my patient. Whilst the anæsthesia is perfect, the amount inhaled is very small. Some little time ago I removed a huge solid ovarian tumour, the operation extending over an hour and a half. The patient was perfectly insensible during the whole period, and the amount of methylene given by Dr. Bampton through Junker's inhaler was rather more than four drachms. As far as my experience goes patients recover very rapidly from the effects of methylene, and the after-sickness is little or nothing.—Yours faithfully,

The Crescent, Plymouth. PAUL SWAIN, F.R.C.S.

THE DEVELOPMENT OF THE RED CORPUSCLES OF THE BLOOD.

To the Editor of THE LANCET.

SIR,—In your issue of October 1st there is a leader on the subject of M. Renaut's discoveries on the development of the white corpuscles of the blood, particularly in the non-mammalian vertebrates. The article concludes with the following sentence: "M. Renaut has made some observations on the development of the red corpuscles of the lamprey, and gives the following succession of forms:—White corpuscle with nucleus proliferating, and protoplasm, not limited by an exoplasmic layer; corpuscle with nucleus proliferating, the protoplasm forming an uncoloured disc, limited by an exoplasm; corpuscle with proliferating nucleus, protoplasm limited by an exoplasm, and forming a disc, more or less charged with hæmoglobin; red corpuscle with proliferating nucleus; and, finally, circular red corpuscle with rounded nucleus."

I am exceedingly glad to find that observations made and published by me in 1874, on the growth and reproduction of the red corpuscles of birds, have been so exactly confirmed by a physiologist like M. Renaut. Of course an obscure observer in a remote colony cannot expect to have much attention paid to his discoveries. Ever since they were published I have endeavoured to bring them to the notice of physiologists. They were republished in the appendix to the Transactions of the New Zealand Institute for 1874. I forwarded a copy to the professor of physiology in every university and medical school in France and Germany, and wrote a letter which appeared in your own columns.

At page 12 of my little pamphlet, of which I send you another copy, you will find a summary of my observations, which, you will see, allowing for a difference in descriptive terms, enumerates all the changes described in the sentence quoted from your article, and some others preceding them, which M. Renaut seems not to have noticed.

I may add that the experiments made with the blood of birds have been frequently repeated since the publication of the paper, always with the same result, and that similar changes have been observed by me to take place in the blood of batrachians and fishes, notably in that of sharks and rays. In the latter there exist compound corpuscles of (relatively) enormous size, consisting of agglomerated masses of small spherical cells. These compound corpuscles may be described as destitute of a common cell wall, and are quite distinct from the so-called white corpuscles.

The following is a summary extracted from page 12 of my pamphlet:—"(1) Swelling of the whole corpuscle, but especially of the nucleus; (2) elongation of the nucleus, and commencing division into generally two, but sometimes four, parts; (3) division of the nucleus, and separation of the parts within the wall of the corpuscle; (4) rupture of the wall and escape of the nuclei; (5) shrinking, and ultimate fatty metamorphosis of the corpuscle; (6) agglomeration of the free nuclei into groups or masses; (7) the nuclei take on them a transparent jelly-like envelope, which (8) enlarges until it assumes the form of a distinct cell wall with contents, and (9) absorbs the colouring matter of the blood, while the nucleus becomes obscured, but may be brought out by dilute acetic acid or water."

I am, Sir, yours truly,

R. H. BAKEWELL, M.D.

Hokitika, New Zealand, December, 1881.

"PHTHISIS AND INFECTION."

To the Editor of THE LANCET.

SIR,—Putting aside Dr. McAldowie's feeble sneer at the facts connected with the Brompton Hospital for Consumption, which I quoted in my last letter, I observe that the only attempt he has made in reply to them is in these words:—"No physician attempts to claim for tuberculosis the same infective power the eruptive fevers possess." Just so; but Dr. McAldowie himself claims something more than some infective power for phthisis (not tuberculosis), which, on the strength of those and other facts, I have ventured to question; and he must not be offended if I say here that, in his letter of Feb. 18th, he has misrepresented the present status of our controversy; or, if one may so speak, he shirks the question. Let me bring him back to the point. The statements to which in his first letter I took exception were the following, the italics being mine:—"With regard to tubercular affections of the abdominal viscera, it is now *universally* admitted that they may, and often do, originate from *specific germs* introduced into the alimentary canal in the same manner as typhoid fever, cholera, and some other infectious diseases." And again—"That it is *generally* allowed by medical men that some kinds of phthisis are contagious." Now, that I have, in any sense, agreed with either of these statements the whole tenor of my letters will disprove; and further, I will not admit that he gains anything by the supposition that I am in error respecting the effect of infective matter when introduced into animals by inoculation. I mean whether it be septic or not, for my argument is not that nothing like tubercle is produced by inoculation with tuberculous matter, but that inoculation with brain, cheese, pus, &c., also produces something in their various organs which cannot be distinguished from tubercle. Further, I believe I am correct in stating that so far from its being generally agreed that the inoculation of tuberculous matter produces true tubercle, it is more generally questioned, and indeed the results are, on the contrary, believed by many to be pyæmic. In the discussion at the Pathological Society, London, referred to in my first letter, Dr. Crisp observed, "I inoculated a guinea-pig with healthy pus from my own finger, and the animal died in thirty days from tubercular deposit in the liver, spleen, mesenteric glands," and he, therefore, argues against the conclusion that true tubercle is the result of inoculation with tubercular matter. My argument, therefore, is here, and has been from the first, that since apparently tubercle, pus, brain, cheese, &c., produce identical deposits, it is direct and palpable nonsense to regard that deposit as specific which is produced by the inoculation of tubercle itself.

Having regard both to your space and my own inclination, I will not pursue this subject further at present. If on some other day Dr. McAldowie should in your columns advance hypotheses as baseless as those I have criticised, I may oblige him—I speak with all courtesy—by "expressing my views on other current medical topics."

I remain, Sir, yours obediently,

King's Lynn, Feb. 20th, 1882. WM. DALE, M.D.Lond.

THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—You have noted in your number of last week that Sir William Jenner no longer sets forth in the Medical Directory that he is a Doctor of Medicine of the University of London. If this be the case, Sir William is not the only graduate in medicine who desires to conceal his connexion with that University. After the changes which have taken place in its constitution during the last few years, there must be many who are looking about for some means of freeing themselves from a relation which, to say the least, is found to

be embarrassing. For my own part, I can say that I am no longer a member of Convocation, and that I have ceased, like Sir William Jenner, to use the title of M.D. of the University of London. But I have no legal means to prevent people giving me this title if they be so minded; and I am advised that nothing but an Act of Parliament can rid me of this encumbrance.

Since my graduation a radical change in the constitution of the University has taken place. The University has affirmed the immoral proposition that, as far as it is concerned, the education of men and the education of women shall be identical. It has done its best to break down the barriers between the two sexes which still remain, even after fifty years of liberal legislation. The applause with which the enemies of Christian marriage in England have received the action of the university shows the real character of the step. Are the graduates who think as I do of the course taken by the University to remain for the rest of their lives with this degrading title following them? They cannot expect that the Senate will propose any measure of relief; for while our names are on the list of graduates they serve as traps or decoys for younger and inexperienced men. Is it just that we should be bound by force to a society which we abhor? Cannot an association be formed to share the necessarily large expenses of getting a Bill of relief through Parliament?

I am, Sir, your obedient servant,

Green-street, Feb. 27th, 1882. J. WICKHAM LEGG.

IRELAND.

(From our own Correspondent.)

AN election of Fellows of the Royal University of Ireland will be held on Tuesday, April 18th, and applications should be sent in to the Secretaries by Tuesday, March 14th. The new university has yet to make a reputation, and in order that it should be placed in the best position, it is absolutely necessary that the best men, both Fellows and Examiners, shall be selected, so that the degrees conferred on those who pass the examination may possess a merit of their own, consequent on a high standard of education. The Senate should be careful in making these appointments, should eliminate the question of religion or politics, and appoint only those who will be a credit to the Royal University of Ireland.

The epidemic of measles which broke out so suddenly in Dublin in the middle of last November still continues to prevail, and the mortality from it has been very high indeed. It has chiefly occurred among the poorer classes, and last month caused 141 deaths, being more than one-fifth of the mortality from all causes. During the ten weeks ending February 18th the deaths numbered 347, an average of thirty-four per week.

Mr. Lawson Tait, of Birmingham, read a paper last week before the members of the Surgical Society of Ireland on "An Experimental Research on the value of the details of Listerism in Abdominal Surgery." His views as to antiseptic surgery in relation to abdominal section are tolerably well known, and his statistics, coupled with Dr. Keith's, were produced to prove that cases of this kind did better by their methods than by that of Mr. Lister. He stated that he had tried Lister's method in one hundred abdominal sections, and that the results were in every way against antisepticism. He regarded the real mortality as beside the question, as so many details entered into the matter that the main question was the speedier and easier recovery of his patients when Listerism was not used. The latter method he regarded as prejudicial to those he operated upon, not alone in the mortality, but also in the slower recoveries. He used absorbent wool without any disinfectant, and sponged out the abdominal cavity with tepid water. In 107 ovariotomies by this method he had only three deaths. Mr. Lawson Tait mentioned incidentally that he believed that ovarian tumours should never be tapped, unless in cases where an operation was forbidden. In the discussion which took place a considerable diversity of opinion appeared to prevail. Some were most enthusiastic in their praise of Listerism; others took a contrary view; while a third party seemed to consider that some of the details—the carbolic spray, for example—might be dispensed with without lessening the good results expected from antiseptic surgery.

Considerable dissatisfaction has arisen in consequence of a rumour having been extensively circulated that the authorities intend abolishing the Royal Hospital at Kilmainham. The institution was originally supported by stoppages from the pay of the soldiers, and towards the close of the last century was in a position to support 600 men. Since then it has been greatly reduced, and as it is the only asylum to which Irish soldiers can look forward as a refuge when disabled from further service, its abolition appears a heartless piece of economy. A committee is now sitting for the formation of a scheme for its modification—in other words, for its gradual extinction.

During the past year there were 25 deaths from small-pox recorded in Belfast, 11 in Dublin, 9 in Waterford, and 2 in Lurgan.

PARIS.

(From our own Correspondent.)

THE very important subject of divorce has more than once been brought before the French Parliament with the view of having it introduced into the laws of the country, and among other questions the special committee appointed to investigate the matter had to decide as to whether insanity ought to be included among the grounds for divorce. Dr. Magnan, physician to the Sainte-Anne Lunatic Asylum, and Professor Charcot were consulted on the subject. Both these distinguished alienists gave it as their opinion that insanity cannot be considered as absolutely incurable until it assumes the form of general paralysis, and as in the latter case the fatal issue always occurred within five years, that period having been determined to be the maximum of its duration, nature will have accomplished what the aggrieved parties desired, and that in a space of time little exceeding if at all that required for the fulfilment of the necessary judicial proceedings. On this report being communicated to the committee insanity as a ground for divorce was almost unanimously thrown out.

At the meeting of the Academy of Medicine on Tuesday last, Dr. Ball, clinical professor of mental and nervous affections at the above-named institution, read a most interesting paper on Unilateral Hallucinations of Hearing, or those limited to the ear affected, in illustration of which he produced clinical notes of a case now under his care at the asylum, and which may be summed up as follows: The patient, a young man, received "a box" on the ear while at school as a boy, soon after which he had an attack of typhoid fever, followed by suppurative inflammation of the middle ear and subsequent perforation of the tympanum. Since that time the patient was observed to be rather peculiar in his manner, and became indifferent to everything about him. He is of weak intellect, somewhat impulsive, and troubled with hallucinations of hearing, which are limited to the ear affected. The hallucinations have considerably diminished, and the improvement seems to have an evident connexion with the state of the diseased ear, which has also considerably improved under appropriate treatment. Professor Ball entertains peculiar ideas on the subject of hallucinations, which are not altogether in accordance with the teachings of physiology of the present day. According to the learned professor, hallucinations are the result of psycho-sensorial phenomena, which are invariably due to a morbid condition of the nervous centres. He repudiates the generally received notion as to the fundamental difference that exists between hallucinations and illusions.

It would seem that human inventions or discoveries are subject to the same natural laws as those by which organic life is governed, as illustrated in the phenomena of birth, growth, and decay. Even "Listerism" is not exempt; and if one may judge from what has been lately published on the subject, it is evident that it has reached its final stage—viz., that of decay. This new mode of treatment has never been much in favour in France, and Dr. Desprès, a well-known surgeon, actually went to the trouble of showing by statistics that his patients got on just as well, if not better, with the old treatment as with the antiseptic method. He stated at a recent meeting of the Société de Chirurgie, that of 401 cases that he had treated during two years at the Charité Hospital without carbolic acid, he had only twenty-three deaths in all; and out of fifty capital operations

he had only five deaths. Some of the members present, M. Verneuil among others, observed that it cannot be denied that formerly pyæmia and septicæmia used to decimate the patients in the hospitals; but that since the introduction of the antiseptic method, these terrible affections have entirely disappeared. To this other members replied that if the mortality was reduced in the hospitals, it was not owing to any particular mode of treatment, but to the more intelligent care of patients.

There has been for some time a regular epidemic of suicides and homicides in Paris; for scarcely a day passes without the newspapers containing an account of one or the other. In a single day of last week there were no less than five suicides (four men and one woman). The mode of death among men is generally by hanging and firearms, and that among women drowning and asphyxia by coal-gas. This would form a most interesting subject for study by psychologists.

In proportion as science progresses dishonest people will turn it to their advantage for the accomplishment of fraudulent practices. This is witnessed daily with articles of food and drink, which are becoming more and more adulterated, so much so that little or nothing of the genuine article is left. There are even imitations or artificial substances sold as food. Many of these are recognised as such, but what is not so well known is the existence of artificial eggs, which are to be found in the Paris markets. They are of American importation, and so skilfully manufactured as to be hardly distinguishable from natural eggs.

THE BASUTOLAND WAR.

(From an occasional Correspondent.)

I WISH I could report that the above-named war had ceased *in toto*. However, so far as the Medical Department goes the war has ended, and all extra medical aid, with but one exception, has been dispensed with. Therefore it may not be out of place at this stage of affairs to present you with a short *résumé* of the medical and surgical arrangements which have been made for the sick and wounded during this, I may say, most unsatisfactory war so far as the colony is concerned:—

1st. The whole of the organisation was entrusted to Surgeon-Major Hartly, V.C., Cape Mounted Rifles, and he was appointed "Principal Medical Officer of Colonial Forces in the Cape Colony." There were about ten surgeons engaged to assist him. The difficulties at first were most trying, the Cape Government keeping no equipment of any kind in reserve for the field. Transport, ambulances, and equipment had to be hastily got together, and the resources of the colony as regards the right kind of materials for this sort of work are deplorably limited. The transport employed was therefore of the usual kind used in South Africa. The ambulances were probably the most miserable ever seen in modern war. I may say that it was almost impossible to place in them or remove from them any serious cases without causing great suffering, if not agony, the Bishop of Bloemfontein's ambulance being the only exception; it is true that was old and deficient in many particulars, yet it was of the Army Regulation pattern, and I believe formerly belonged to the Imperial Army Medical Department—probably a remnant of the late Zulu war. However, I have been given to understand that the Principal Medical Officer of Colonial Forces was not to be blamed for this deplorably sad weakness of his department, or organisation; the responsibility entirely rests upon the Commissariat Department. No others (better) being forthcoming, they had to be used. I am told that the gravest complaints were made at the time without effect. The equipment was for the most part of colonial manufacture, and that at first placed at the disposal of the Principal Medical Officer seriously deficient and defective; however, as time progressed, the marquees and tents improved (almost too late, perhaps), and something like comfort slowly grew up, until the sick and wounded were tolerably well provided for in the usual field manner. The marquees for the sick, though of poor material and imperfect, were amply provided with suitable beds and blankets, and the medical comforts were abundant. The ladies of Cape Town—Lady de Villiers in particular—also Father FitzHenry, R.C., contributed in no small measure towards the latter.

2nd. The hospital &c. arrangements were much as follows: (1) One principal general or base hospital at Aliwal North, situated about 100 miles in rear of advanced lines, (2) two intermediate hospitals, and (3) three field hospitals. The first-named was under the charge of Civil Surgeon Hall. The two second-named were, one under Surgeon-Major Smith, C.M.R.; the other under Civil Surgeon Reed. The three last-named were under respectively Surgeon-Major Canning, C.M.R., Civil Surgeon Green, and Civil Surgeon Taylor. The field surgeons consisted of Surgeon Lamb, 3rd Cape Yeomanry, Surgeon McCrea, V.C., 1st Cape Yeomanry, and Civil Surgeon J. C. Layor. Several other medical officers were employed, but returned to their civil duties during the earliest stage of the war, and did not come back. The surgical appliances for field work were abundant, but for hospital detail work were deficient in some essential particulars. The nursing of the sick and wounded had to be entrusted to untrained hands. Many of the "orderlies" were utterly indifferent to their duties, addicted to excessive drinking, consequently untrustworthy. Probably this could not be avoided, as men had to be taken on from all sorts of irregular corps, and enrolled for only a few months. Still, on the whole, they manage to pull through. The sisters from the Home at Bloemfontein rendered valuable aid at Wepener intermediate hospital, also at the Mafetery intermediate or advanced hospital in Basutoland (in sight of the enemy). These sisters, I am told, are under the Bishop of Bloemfontein, and they volunteer their services without fee or reward of any kind. The wounded were not numerous, the sickness not great—the latter chiefly dysentery and a few typhoid and enteric fever cases—the greatest number of deaths from disease occurred in the Cape Mounted Rifles. There were no special medical or surgical features connected with any cases that I can gather to which I need draw your special attention, or in the management or treatment of the sick and wounded, perhaps a little to condemn. No doubt the principal medical officer is fully alive to the weakness of his department, and in the event of the war being renewed by the Government of this colony (not likely, though), no doubt he will do his best to avoid past difficulties when making future arrangements. Dr. Hartly, V.C., may congratulate himself upon coming out of such difficulties as he had to contend against with a certain amount of satisfaction ("sans peur et sans reproche"), it being his first serious attempt at field organisation.

The Transkei War.

This war was raging when the Basuto war commenced, but the duties of the medical department were entrusted to Civil Surgeon Gould, assisted by two or three civil medical officers. The plans of this war were so widely spread over a large tract of country, that it was impossible for one senior medical officer to manage details, or to see after organisation, so matters had to slide. Consequently, there being no co-operation, or system of organisation, several engagements with the enemy took place without any medical officer being within reach, and one or two deaths resulted therefrom. Corps raised suddenly and in detail could not be provided with medical officers, and corps had to march hundreds of miles to advanced positions without such aid. Of course the precarious character of the engagements made with medical men rendered them anything but attractive; and men would not abandon their established private practices to take to the field, with all its risks, hardships, and miserable living, only, perhaps, for a few weeks or months, then left, as the soldier would say, "as you were," minus the means of support—perhaps even minus the little ready cash you started with, as the incidental expenses are enormous here, and the travelling allowances provided for do not actually cover the costs of the road. Then the difficulty of getting a servant or an "orderly" was considerable, and medical men's time was even occupied in attending to their horses and in cooking their own food.

However, I close with a remark I heard *à propos* this subject—viz., "That if poor colonies are to carry on large wars upon their own miserable resources, some departments will suffer." Possibly the Medical Department (as usual) was the victim in this case.

THE "Temperance Record" announces the death, at the age of sixty-eight, of Dr. Louis Martin, Member of the Royal Medical Academy of Belgium, who took an active interest in the promotion of temperance.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Tuesday the motion for the second reading of the Shop Hours' Regulation Bill was withdrawn on the recommendation of Lord Rosebery.

Dr. Kenny.

In the House of Commons on Thursday night, Feb. 23rd, a discussion was raised in Committee of Supply on the case of Dr. Kenny, who, having been imprisoned as a "suspect," has since been prevented by the Irish Local Government Board from returning to his post of medical officer of the North Dublin Union. Dr. Lyons paid a high tribute to the personal and professional character of Dr. Kenny, and joined with the Home Rule members in demanding from the Government a withdrawal of the existing disability against that gentleman. In the result Mr. Forster promised to consider the demand.

The Contagious Diseases Acts.

On the motion of Mr. Childers the Select Committee of last year was reappointed, with power to receive evidence from the colonies and foreign countries. The Committee is composed as follows:—Mr. Stansfeld, Mr. Cavendish Bentinck, Viscount Crichton, Mr. Burt, Mr. O'Shaughnessy, Mr. Osborne Morgan, Mr. Cobbold, General Burnaby, Sir Henry Wolff, Mr. Ernest Noel, Colonel Digby, Mr. William Fowler, Mr. Hopwood, Colonel Tottenham, Dr. Cameron, Dr. Farquharson, and Mr. Hanbury-Tracy.

Complaint against a Coroner.

On Friday, in reply to Mr. Grantham, the Home Secretary said he had received a memorial from the inhabitants of Camberwell and Dulwich, with reference to an alleged delay on the part of Mr. Coroner Carter in holding an inquest on the body of the late Richard Dawre. He had written to the coroner on the subject, and when he received that gentleman's reply would forward it to the memorialists.

On Monday, a petition was presented from Newcastle in favour of an alteration of the law of registration of births and deaths. Mr. Gray brought in a second Bill to provide for the notification of infectious diseases in Ireland. Mr. Salt gave notice that he will move for reports upon the sanitary condition of Omagh gaol, and Mr. Lewis gave notice of a question for Monday next as to the appointment of eleven governors of the county of Derry Lunatic Asylum, who had been prominent supporters of the Solicitor-General for Ireland in his election.

The Case of Dr. Kenny.

Dr. Lyons asked the Chief Secretary if the Government had come to any decision on the case of Dr. Kenny. Mr. Forster said he found Dr. Kenny's office was not yet permanently filled up. The election was to take place next month. He need not repeat the statement he made on Thursday; but as Dr. Kenny had been discharged by the Government, should the guardians make application to the Local Government Board to consent to his being put in nomination, that consent would be given. Should he be re-elected by the guardians no objection would be raised.

On Wednesday, Mr. Thomas Dickson gave notice that on Friday he will ask the Chief Secretary for Ireland whether he will order an inquiry into the sanitary condition of all the prisons in Ireland.—Mr. Thomasson gave notice that he will move the rejection of Mr. Gray's Bill for the Notification of Infectious Diseases in Ireland.

THE LEVÉE.—The following members of the medical profession were present at the levée held by the Prince of Wales on behalf of the Queen at St. James's Palace on the 23rd ult.:—Sir James Paget, Sir William Gull, Sir William Mac Cormac, Dr. Arthur Farre, Dr. Wilson Fox, Dr. G. V. Poore, Dr. Rae, Dr. W. Reid, Dr. Reginald Read, Dr. H. C. Woods; Surgeon J. C. Culling, A.M.D.; Surgeon W. Campbell, M.B., Scots Guards; Surgeon A. M. Davies, A.M.D.; Surgeon R. J. D. Hackett, A.M.D.; Surgeon-Major C. J. W. Meadows, Bengal Army; Surgeon Edward Mulvaney, Bengal Army; Surgeon W. Rowney, A.M.D.; Dr. Thorne Thorne; Surgeon James Adams Vasey, R.N.; Surgeon E. M. Wilson, A.M.D.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates of the College on Feb. 23rd:—

Alderton, Herbert Charles, Dispensary, Stoke Newington.
Bevan, Henry Crook, Frederick-street.
Cooper, George Frederick, St. Thomas's Hospital.
Day, Thomas Montagu, Harlow.
De Lom, Henry Anthony, Denbigh-street.
Fell, Walter, Earl's-court-road.
Harper, Charles John, Station-road, Finchley.
Joseph, John Baptiste Edgar, Trinidad.
Parry, Robert, Festiniog.
Prabhakar, Govindrao Bhau, Saltoun-road.

UNIVERSITY OF CAMBRIDGE.—At a congregation on the 23rd ult. the degree of Bachelor of Medicine was conferred on the following gentlemen:—

Cannon, Frank John, Trinity College.
Lane, James Oswald, St. John's College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentleman has been admitted a Fellow of the College:—

Frederick W. Higginson, Lic. Med. Dub., Civil Medical Officer, Bengal Establishment, Government of India.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 23rd:—

Ford, William Henry, Melbourne, Victoria.
Furnival, Francis Henry, Muston, Nottingham.
Hudson, Ernest, Harleston, Norfolk.
Lowers, Arthur Hamilton N., Torrington-square.
Stacpoole, Charles, Inverness-terrace.

The following gentlemen also on the same day passed the Primary Professional Examination:—

T. Patrick Baird, Aberdeen University; Charles Williams, Middlesex Hospital.

THE Hospital Sunday collection in Manchester has so far amounted to £4669 *1s. 6d.*, while the Saturday collection in the mills and workshops reached £1559 *17s. 1d.* It is expected that some additions will still be made to these amounts.

ON the 24th ult., at the Royal Institution, London, Professor M'Kendrick, of Glasgow University, gave a discourse on "The Breathing of Fishes" before a large and fashionable audience, among those present being Professor Tyndall, Professor Allen Thomson, and other eminent scientists.

AT the annual meeting of the friends of the Farringdon General Dispensary last week it was mentioned that the payments of patients had been sufficient to defray the whole cost of drugs &c., besides leaving a surplus for other requirements. Of the 32,746 recipients of the benefits of the institution, 2414 were visited at their own homes.

MR. FRANCIS GRANT of Rock Ferry, who recently gave £10,000 for the foundation of a Chair in connexion with the University College of Liverpool, has now invested £100,000, the interest of which, amounting to £4000 per annum, is to be distributed by the trustees of the fund for the relief of the deserving poor, without distinction of class or creed.

THE report of the committee of the Wells Cottage Hospital, read at the annual meeting of its subscribers on the 21st ult., stated that fifty-three cases had been admitted during the past year, that forty-five of these had resulted in recovery, and no death had occurred in the institution in the same period. The working class in the district had contributed £59 12*s.* 5*d.* to the funds of the hospital.

GLASGOW EYE INFIRMARY.—At the fifty-eighth annual meeting of the contributors to the funds of this institution the chairman, in moving the adoption of a very favourable report, stated that the number of cases treated during the past year was unparalleled in the history of the infirmary. It exceeded 10,000, and was 1350 in excess of the previous year. These cases had been dealt with at an

expense of little over £2300, and more than 1100 operations had been performed; while 921 patients had been kept gratuitously in the house for a period of twenty-three or twenty-four days each. Ten years ago, when it was found necessary to establish an additional hospital in the West-end, the number of cases treated amounted to only 3800. The chairman found in these considerations the best evidence that such an institution was of much advantage. That is one way of looking at the matter. There are others to whom such facts are suggestive rather of an alarming increase in that abuse of medical charity which is becoming every day common in Glasgow.

CAMBRIDGE PHILOSOPHICAL SOCIETY.—At the meeting of the Society, to be held on Monday next, at 3 P.M., Dr. Latham will communicate some further observations on the transformations of alcohol, and on the formation of alcohol and urea in the living body, with special reference to the experiments of Schultzen, Hoppe-Seyler, Salkowski, and others. (*Berichte d. Deutsch. Chem. Gesell.*, v. s. 578, 637; vi. s. 744, 1191; vii. s. 34.)

THE Medical Society inaugurated in May last by medical officers of the British and Indian Departments serving at Morar, in the Gwalior district, has now been established on a more formal basis, and the following office-bearers have been elected for the ensuing session:—President: Surgeon-Major Hogg, A.M.D. Vice-President: Brigade Surgeon Sutherland, I.M.D. Honorary Secretary: Surgeon Wood, A.M.D.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the ordinary meeting, to be held at 9, Conduit-street, on March 8th, at 7.45 P.M., the prize of £200 for an essay on the "Range of Hereditary Tendencies, in Health and Disease," will be presented by the Rev. E. Wyatt Edgell, B.A., and a paper on the subject will be read by George Gaskoin, M.R.C.S., L.S.A., the author of the prize essay. The paper will be followed by a discussion.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BAIN, WILLIAM, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Medical Officer to St. Mary's Hospital and the Manchester and Salford Lying-in Hospital and Dispensary for Diseases of Women and Children, Quay-street, Manchester.

BEATTY, WM. J., L.R.C.P.E., L.F.P.S.Glas., has been appointed Surgeon to the Stockton-on-Tees Boiler Makers' and Iron Ship Builders' Society.

CARSON, STEWART, jun., M.B., C.M.Ed., has been appointed Medical Officer of Health to the No. 1 District of the Alston-with-Carrigill Rural Sanitary District.

COPLEY, W. HENRY, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Seventh (Elm) District of the Wisbech Union, vice Nicholl, deceased.

GOLDING, JAMES PUNCH, M.D., has been appointed Physician to the North Infirmary, Cork, vice Dr. Popham, resigned.

GRANT, J. DUNDAS, M.A., M.D., M.R.C.S., has been appointed Honorary Surgeon to out-patients at Poplar Hospital.

HOPPER, HUGH, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Heworth District of the Gateshead Union.

KEAY, JOHN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Junior House-Surgeon to the Stockport Infirmary, vice R. A. Murray, M.B., C.M., appointed Senior House-Surgeon.

LAURENT, EUGENE A. O., M.B.Lond., M.R.C.S., has been appointed Resident Surgeon to the Bedford General Infirmary and Fever Hospital, vice J. S. Bond, M.R.C.S., L.R.C.P.Lond., resigned.

LAZENBY, J. REUBEN, F.F.P.S.Glas., L.S.A.Lond., has been appointed Medical Officer to the Long Preston District of the Settle Union.

MEAD, G. B. OWEN, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of Health to the Newmarket Urban Sanitary District, vice Roper.

MILLAR, THOMAS, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer to the Third District of the Ripon Union.

MOODY, JAMES M., M.R.C.S., L.R.C.P.Ed., has been appointed Senior Assistant Medical Officer to the Surrey County Asylum, Brookwood, vice Barton, appointed Medical Superintendent.

MURRAY, ROBERT A., M.B., C.M.Ed., has been appointed House-Surgeon to the Stockport Infirmary, Cheshire.

PICKWORTH, ALFRED JOSEPH, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer of Health to the No. 2 District of the Alston-with-Carrigill Rural Sanitary District.

PURDIE, THOMAS, B.Sc.Lond., F.C.S., has been appointed Public Analyst to the Borough of Newcastle-on-Tyne.

ROBINSON, JAMES J., M.B.T.C.D., has been appointed House-Surgeon to St. Mark's Ophthalmic Hospital, Dublin, vice S. Davis, resigned.

THOMAS, J. HOWELL, L.R.C.P.Lond., M.R.C.S., &c., has been appointed Medical Officer of Health to the Wellingborough Rural Sanitary Authority.

WOOLBY, J. B., L.R.C.P.Lond., has been appointed Physicians' Assistant at the Bristol General Hospital, vice R. J. Bryden, M.R.C.S., L.S.A.Lond., resigned.

YOUNG, A. HARRY, M.B., C.M.Ed., F.R.C.S.E., has been appointed Honorary Surgeon to the Hospital for Consumption, Manchester.

Births, Marriages, and Deaths.

BIRTHS.

DUIGAN.—On the 22nd ult., at Edith-road, West Kensington, the wife of Daniel John Duigan, C.B., M.D., Deputy Inspector-General of Hospitals and Fleets, of a son.

GILL.—On the 26th January, 1882, at Richmond, Cape of Good Hope, the wife of Edmund Richard Gill, District Surgeon, of a son.

GURDEN.—On the 20th ult., at Hopton, East Harling, Norfolk, the wife of Edwin J. Gurden, M.R.C.S., L.R.C.P.Ed., of a daughter.

MCNAUGHTAN.—On the 25th ult., at Queen's-square, Blackpool, the wife of Thomas McNaughtan, M.D. &c., of a daughter.

NORMAN.—On the 16th ult., at Edde-cross House, Ross, the wife of J. W. Norman, F.R.C.S., of a daughter.

ORMEROD.—On the 25th ult., at Upper Wimpole-street, Cavendish-square, the wife of Joseph Arderne Ormerod, M.B., of a daughter.

WHITE.—On the 27th ult., at Malmesbury, Wilts, the wife of Edward A. White, M.D., of a son.

WHITING.—On the 24th ult., at Ebury-street, Eaton-square, S.W., the wife of James D. C. Whiting, M.R.C.S., of a son.

MARRIAGES.

COOKE—CHALMERS.—On the 21st ult., at Hollington Old Church, St. Leonards-on-Sea, John Cooke, M.B.Lond., of Hastings, to Alice, widow of J. F. Chalmers, Esq., of the Manor House, Ham.

DUNBAR—SAUNDERS.—On the 21st ult., at St. Paul's Church, Bayswater, James John Macwhirter Dunbar, M.D., eldest son of Surgeon-General J. A. Dunbar, M.D., Indian Army (retired), to Mary, daughter of George Saunders, Esq., M.D., C.B.

MASON—JORDISON.—On the 28th ult., Alfred Haynes Mason, Surgeon, of South Ockenden, Essex, second son of Dr. Saml. Mason, F.R.G.S., of Finsbury-circus, to Mary Jane, daughter of the late Robert Binks Jordison, of South Ockenden, Surgeon.

ROBSON—JAMIESON.—On the 21st ult., at St. Mary's-in-the-Bottons, South Kensington, Edward Sheddon Robson, B.A., M.R.C.S., L.R.C.P., eldest son of Robert Naisbitt Robson, Esq., of Durham, to Edith Isabel, youngest daughter of the late James Young Jamieson, Esq., of Gainford House, near Darlington.

WILLIAMS—BIRKBECK.—On the 21st ult., at Holy Trinity, Melbecks, by the Rev. Canon Roberts, Rural Dean and Rector, of Richmond, Yorkshire, assisted by the Rev. R. V. Taylor, Vicar, Howell Williams, L.R.C.P., M.R.C.S., of Richmond, to Adelaide, only child of John Clarkson Birkbeck, Esq., of "Hazel Brow," Swaledale, Yorkshire.

DEATHS.

COUCHMAN.—On the 21st ult., at Worthing, Robert Couchman, M.R.C.S., L.S.A.Lond., formerly of Bedford, son of the late Henry Couchman, Esq., of Temple Balsall, Warwickshire, aged 63.

CROFT.—On the 26th ult., Robert Charles Croft, L.R.C.P.Ed., M.R.C.S., of Camden-road, aged 55.

GOODWIN.—On the 24th ult., at Monument House, Ashbourne, Derbyshire, Robert Docksey Goodwin, F.R.C.S.Eng.

MORELAND.—On the 19th ult., at Corporation-street, Belfast, Hugh Moreland, M.D.Glasg., aged 63.

SUTHERLAND.—On the 21st ult., at Moray House, Leyland-road, Lee, Kent, John Sutherland, M.D., late Inspector-General of Hospitals, Bengal.

YEATES.—On the 26th ult., at Walthamstow, Essex, George Yeates, M.D.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Birt Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 6.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "Anatomy, Physiology, and Zoology of the Edentata."
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8 P.M. General Meeting.—Ballot for Officers and Council.—Dr. Hughlings-Jackson, "On a Case of Cortical Tumour of the Brain, with convulsive seizures beginning in the right foot."—Dr. Sansom, "On a Case of Hodgkin's Disease."

Tuesday, March 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor John G. M'Kendrick, "On the Mechanism of the Senses."
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Anomalous Nerve-disorder in Infancy (living specimen); Multiple Osteochondromata (living specimen); Congenital Dislocation of the Hip; Spinal Caries in early stage; Fracture of Condyle of Femur (card); Radically cured Inguinal Hernia; Congenital Hypertrophy of Toes (card); Sarcoma of Epididymis; Double Displacement of Tibia (living specimen); Sequestrum in Head of Femur; Intestinal Obstruction in a Marmoset; Carcinomatous Stricture of Œsophagus (card); Case of Alopecia; Three Cases of Alopecia areata in one family; Microscopical Preparations of Alopecia areata.

Wednesday, March 8.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "Anatomy, Physiology, and Zoology of the Edentata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Gulstonian Lectures: Mr. W. Ewart, "On Pulmonary Cavities—their Origin, Growth, and Repair."
HUNTERIAN SOCIETY.—7.30 P.M. Council Meeting.—8 P.M. Dr. Bedford Fenwick, "On Venesection in Cardiac Disease."
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. General Meeting.

Thursday, March 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Dr. P. L. Sclater, "On Geographical Distribution of Animals."
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—3½ P.M. Dr. Walter Edmunds, "On a Case of Suppurative Ophthalmitis after Ligature of Common Carotid."—Mr. Lawford, "On an Unusual Case of Gunshot Injury of the Eye."—Mr. Warren Tay: (1) "On a Case of Optic Neuritis after Concussion of the Brain;" (2) "On a Case showing Condition three years after Optic Neuritis from Injury to the Head."—Dr. Sidney Coupland, "On a Case of Optic Neuritis following Contusion of the Brain."—Mr. McHardy, "On a Case of Extensive Retinitis following Injury to the Head."—Mr. Fitzgerald (Dublin), "On a Case of Defective Vision in a Seaman."—Dr. Brailey—microscopical specimens: (1) From a Case of Retinal Detachment simulating Sarcoma of Choroid; (2) (For Mr. Mason, of Bath) From a Case of Sclero-corneal Tumour.—Mr. Snell (Sheffield), "On a Case of Sympathetic Ophthalmitis setting in after Excision."—8 P.M. Mr. Nettleship, "On a Case of Atrophy of Optic Disc after Orbital Erysipelas" (living specimen).
ABERNETHIAN SOCIETY (St. Bartholomew's Hospital).—Mr. Griffith, "On the Diagnosis of Syphilis."

Friday, March 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "Anatomy, Physiology, and Zoology of the Edentata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Gulstonian Lectures: Mr. W. Ewart, "On Pulmonary Cavities."
ROYAL INSTITUTION.—8 P.M. Mr. J. W. Swan, "On Electric Lighting."
CLINICAL SOCIETY OF LONDON.—Mr. G. Lawson, "On a Case of Chimney Sweep's Cancer of the Axilla treated by Excision of the Growth, Ligature of Axillary Artery, and Amputation at Shoulder-joint."—Mr. H. Marsh, "On a Case of Aneurism of Axillary Artery, Ligature of Subclavian, Rupture of the Sac, Amputation at Shoulder-joint; recovery" (patient to be shown).—Dr. Mahomed, "On a Case of Myxœdema improving under treatment" (patient to be shown).—Mr. Warrington Haward, "On a Case of Removal of the Hypertrophied Spleen."—The following living specimens will be exhibited:—A Case of Radical Cure of Congenital Hernia in the Adult, by Mr. C. H. Golding Bird; a Case of Cured Spina Bifida, by Mr. Pearce Gould; Two Cases of Universal Ichthyosis in Adult Females, by Dr. B. O. Connor.

Saturday, March 11.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. Watkiss Lloyd, "On the Iliad and Odyssey."

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, March 2nd, 1882.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 24	30·10	S.	44	42	..	50	40	..	Overcast
,, 25	29·90	S.W.	49	47	..	55	41	..	Cloudy
,, 26	29·35	S.W.	53	51	..	57	47	..	Cloudy
,, 27	29·12	W.	49	47	..	54	43	..	Cloudy
,, 28	29·58	S.E.	43	42	..	50	39	..	Overcast
Mar. 1	28·96	S.W.	46	43	..	53	39	..	Cloudy
,, 2	29·31	S.W.	46	41	..	53	40	..	Bright

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Lectures, original articles, and reports should be written on one side only of the paper.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SANITARY STATE OF DAVOS PLATZ.

WE have received from *Dr. Beeli*, of Davos, a communication, too long for insertion entire, in which he controverts the statements put forth by Mr. Symonds on the sanitary defects of this famous health-resort, and commented on in an annotation which appeared in our issue of January 21st last. Dr. Beeli says:—

"Since 1877 only fourteen houses have been built in Davos-Platz and its vicinity. Eleven of them are small villas and private houses; one is the parish school and two are hotels, containing about thirty-five rooms each. In process of construction are two small private houses, a deaconess' house for the reception of very weakly patients and a villa for Mr. Symonds himself. Besides the buildings above mentioned, we must not forget an enlargement of the kurhaus; but it consists entirely of well-ventilated public-rooms, no addition with a view to accommodating more visitors having entered into the plan. Many house-holders have increased the number of their balconies and widened their terraces and verandahs. . . . The piece of highway that serves the visitors as a promenade, and which in consequence (particularly in winter) is kept in first-rate order by the so-called 'kurverein,' is at least two and a half kilometres (roughly speaking, one and three-quarters English miles) in length. On the sunny side of this stretch of road four houses only have been built since 1877, representing a length of seventy metres—about eighty English yards. As regards the cloud of smoke, now supposed to hover constantly over the valley, the facts are as follows. On cold, calm days the smoke (proceeding almost exclusively from wood fires) is retained by the freezing air at a certain height above the roofs of the houses and disperses slowly after the lapse of several hours. This was, however, the case in 1877 as it is to-day, and the phenomenon is due to the remarkable stillness of the air, one of the chief factors of our climate. The snow supplies us with a proof of the purity of the air, for when weeks elapse without the recurrence of any fresh fall, it might be expected to lose something of its pristine whiteness, but Mr. Symonds himself declares that "the snow-dress of the valley glitters with pure crystals." . . . The sanitary arrangements are good in all the hotels of Davos-Platz. A general system of drainage for the whole of Davos and a complete canalisation of the Landwasser are already determined upon, and the work will be commenced as soon as the subvention, to which the Federal Government is pledged, has been granted. As regards the social gatherings in Davos, most visitors complain of their paucity. Social entertainments cannot be entirely dispensed with, because many healthy persons come to Davos as companions to the invalids and rebel against medical discipline. Doctors and hotel proprietors have always exerted themselves to prevent the invalids from taking part in the amusements."

AN UNUSUAL CASE OF STONE.

MR. W. H. MACDONALD, member of the resident staff of the Toronto General Hospital, reports in the *Canadian Journal of Medical Science* a rare case of calculus under the care of Mr. McFarlane, surgeon to the hospital. The patient, a lad aged nineteen, went into hospital in a low, emaciated condition, the only history obtainable being that he had been suffering for six or seven years. A hard, brawny, red and tumid condition of the perineum was found; and a little to the left of the median line, about an inch in front of the anus, a small urinary fistula was seen to open. Catheterism was impracticable. An incision was made through the centre of the swelling, and the knife struck upon a stone. On introducing the finger, it was found that a large calcareous mass occupied the whole space between the pubic arch and the rectum. In view of its size and the low condition of the patient, no attempt was then made to remove it. Per rectum a stony mass within the bladder could be detected. Urine dribbled away freely enough, and no uræmic nervous symptoms were presented; but the boy shortly succumbed to diarrhœa and asthenia. At the necropsy the left kidney was found to be represented by a small mass of fat and fibrous connective tissue, reniform in outline, but devoid of kidney structure, with a shrunken and impervious ureter. The right kidney was a large purulent sac, with little renal structure remaining. The bladder was thickened and contracted, closely enveloping a phosphatic stone, half an ounce in weight. The lower bladder wall was defective, so that the calculus it contained articulated by a facetted surface with the extra-vesical calcareous mass which occupied all the space beneath the arch of the pubes, measuring two by two and a half by one and a half inches, and weighing two ounces and a half. The urethra seemed to be obliterated at its pubic end, as nothing could be passed along it, and no connexion traced between it and the bladder.

EFFECTS OF THE INGESTION OF CAMPHOR.

To the Editor of THE LANCET.

SIR,—It is desirable to bring before your notice a case of some interest, rarity, and therapeutic importance.

S. L——, an omnibus conductor, felt extreme giddiness, became unconscious, and fell off his 'bus in Holloway, on Sunday, Feb. 26th, 1882. He recovered after a few hours, save his bruises. He is a teetotaler, and never had a fit before, but for a cold he had eaten 80 to 100 grains or more ("two lumps each the size of the third of a finger") of camphor a short time previously to this occurrence.

Most works on materia medica state that in doses of one drachm or more camphor has produced giddiness, sickness, muscular weakness, coldness of extremities, loss of consciousness, and even death. It is a matter of surprise that these cases are so seldom known to occur, camphor being in nearly every household.

I am, Sir, your obedient servant,

Holloway, Feb. 27th, 1882. PHILIP COWEN, M.R.C.S.

TOLERANCE BY THE BRONCHUS OF NITRATE OF SILVER.

To the Editor of THE LANCET.

SIR,—Dr. Gibson's (Newcastle-on-Tyne) recommendation of inhalations of nitrate of silver in the treatment of certain bronchial affections, reminds me of some experiments performed by Dr. Horace Green (*American Medical Monthly*, Feb. 1860), with the view of testing the endurance of the bronchial mucous membrane. By means of a catheter he introduced into the bronchus of a dog half an ounce of a solution of nitrate of silver of the strength of fifteen grains to the ounce of water. The dog did not appear to suffer from the operation, and continued well next day. The injection, however, of one ounce of a solution of the same salt, containing thirty grains to the ounce, killed the animal, but not at once. The first experiment shows that the bronchial mucous membrane is not so delicate or sensitive as is usually supposed. This fact may yet prove of service in practical therapeutics.

I am, Sir, yours, &c.,

Edinburgh, Feb. 27th, 1882. G. HUNTER MACKENZIE, M.D.

"Beer in Workhouses."—We are not in the least degree surprised to find a spirit of criticism—some of it a little uncourteous—called forth by our declaration in favour of the supply of beer to the aged and infirm in workhouses. We have nothing to add to our expressed opinions on this subject. The key-note of our judgment is a mature conviction that wise *moderation* in the use of stimulants is preferable to abstinence. We recognise the physiological need of stimulants (taken in small quantities with food) in the case of debilitated subjects.

E. W. has not enclosed his card.

Dr. B. Foster.—Next week.

Dr. J. W. Hunt.—In an early number.

Marsupial.—Apply to Silver and Co., Cornhill.

Medicus is thanked for his communication. It would be of little use to publish such bare particulars, which are not altogether novel. Apart from some history of the epidemic and of the individual cases, the value of the treatment could not be judged

DEATH UNDER CHLOROFORM.

To the Editor of THE LANCET.

SIR,—On Jan. 24th a man about fifty years of age came to me suffering from a subcoracoid dislocation at the shoulder-joint of about twenty-four hours' standing. Failing to reduce this by the ordinary methods, I suggested that he should take chloroform, and to this he assented. He had inhaled about two drachms, and I had taken the handkerchief away from his face in order to place a rug beneath his feet; while doing this he suddenly raised his body, got black in the face, and died. I kept up artificial respiration for about an hour, but it was of no avail. On post-mortem examination the heart was found in a state of fatty degeneration, and the other organs extensively diseased. The jury attached no blame to the medical man, but several of them were of opinion that the custom adopted by medical men of giving chloroform alone was to be deprecated. Whether the medical profession will adopt this advice is questionable. If medical men were to take their advice chloroform would seldom be used in midwifery, and children in convulsions would continue convulsed until a second medical man could come and be a looker on.

I am, Sir, yours, &c.,

Gloucester House, Malvern, Wells, PERCY HAYNES.
Feb. 7th, 1882.

Q. G.—The practitioner in the circumstances of B. is under a very strong obligation to refuse to take charge of A.'s patients. We are not prepared to say that there are no considerations which would justify B. in allowing his refusal to be overcome; but they would have to be of unusual force and of rare occurrence. The freedom of the patient has of course to be considered, but between well-regulated practitioners a misunderstanding in such circumstances as those detailed will be very uncommon and of short duration.

Dr. Heywood Smith.—The paper has been received, and will appear in an early number.

Expectans.—Instruction is given at most of the metropolitan hospitals—e.g., St. Bartholomew's, University College, Guy's, and King's College.

TREATMENT OF PLEURO-PNEUMONIA.

To the Editor of THE LANCET.

SIR,—Whilst your communications from hospital and other physicians are usually exceedingly interesting and instructive so far as the diagnosis and pathology of diseases are concerned, they are too often disappointing as to the treatment followed or suggested. The interesting case given by Dr. Sturges in your number of Feb. 18th is an illustration. It occupies over four columns, but a single line only is given to the treatment. Are we to understand that a case of acute pleuro-pneumonia so severe as to produce complete consolidation of half a lung, with a "bulky" effusion of lymph and some ounces of fluid, complicated after a few days with typhoid fever, was treated, especially during the six days previous to the commencement of typhoid, simply by the "liberal administration of strong beef-tea and other nutrients"? This is the natural inference from the context, but I have little doubt it would be incorrect, and it would add much to the value of his communication if Dr. Sturges would kindly supplement it by the treatment actually adopted.

I am, Sir, yours, &c.,

WILLIAM S. CURTIS, M.D.

Kennington-park-road, S.E., Feb. 25th, 1882.

Mr. R. Hickman.—The sentence can only be inserted as an advertisement.

Messrs. E. Chapman and Co.—The letter has not been preserved.

Iota.—It is not usual for Fellows of the College of Surgeons to put their titles on their door-plate, or to hang their diplomas framed in the consulting-room. Such a title is certainly not a thing to be ashamed of, but we admire the modesty which leaves it to be learnt from the Medical Register or the Medical Directory.

Cor. S.—We do not prescribe. The ordinary medical attendant should be consulted.

TOBACCO SMOKING: AN APPEAL.

To the Editor of THE LANCET.

SIR,—I am a hard-worked lawyer, nearly sixty years of age, and till about two years ago have for many years previously been comforted by resort to moderate smoking. But during the last two years this solace has been denied to me, for if ever I smoke now (even a cigarette) it produces a few hours afterwards a complete disturbance of the liver, with all the attendant consequences of a bilious attack, and, as a result, I am practically prohibited from availing myself of the enjoyment of "the fragrant weed," and am thereby deprived of an immense solace to a worn and weary brain. Medical friends to whom I have applied afford me no practical help, and I have therefore determined to ask your permission to submit my difficulty to unknown friends (especially smokers) through the medium of your journal, and inquire whether I can take or do anything, and what, to render a quiet pipe innocuous.

I am, Sir, yours, &c.,

Feb. 25th, 1882. G.

SPLENECTOMY.

To the Editor of THE LANCET.

SIR,—Mr. Herbert Collier's article in your issue of February 11th is a valuable summary of the results of this operation, but I think that surgeons who carefully study his tables will find good reasons for declining—in the present immature state of our knowledge and experience on the subject—to entirely agree with his assertion that the operation is a "useless and deadly experiment."

The early history of all great operations has always been a discouraging one, and more especially in the various branches of abdominal surgery, but the many and great difficulties have in all cases (except in gastrostomy and splenectomy) been surmounted. May it not be possible, by a proper selection of even leucocythæmic cases, and by the adoption of improved surgical procedures, to render removal of the spleen not merely justifiable, but also satisfactory? I, at least, hope so, and for the following reasons.

1. Mr. Collier's table of the leucocythæmic cases shows that fourteen of the sixteen patients operated on were in an advanced stage of the disease, and were from thirty-seven to forty-nine years of age. If younger subjects in an early stage of the disease were selected the operation would probably have a better chance of success. It is true that the remaining two cases, also fatal, were young subjects in a comparatively early stage of the malady; but is it right to condemn an operation which, with increasing knowledge and improved methods, may offer the only chance for these unfortunate people, on the evidence of these two cases?

2. The physiological, or rather pathological, argument that leucocythæmia is a blood disease, and that extirpation of the spleen will be useless, has yet to be proved, and if there be any truth in the view that the spleen is a great manufacturer of white corpuscles, and is, moreover, a propeller—a sort of second heart (Dr. Roy)—driving its "Brummagem" products (in the diseased state) through the liver to reach the heart—which may be regarded as its agent of distribution—then, I say, there is all the more reason for its removal, provided means can be found to do so with some hope of success. Cancer was not long since held to be a blood disease, but did not surgeons continue to operate, and with a fair amount of success, in cases taken early? And now the wind has veered round and the modern doctrine is that carcinoma is of local origin. Will the pathological weathercock similarly change with reference to leucocythæmia?

3. The danger which appears to be special to the operation is hæmorrhage, and this likens it in this particular to hæmophilia; but it remains to be shown that this danger is insurmountable. In some of the cases in the leucocythæmic table there is no mention of hæmorrhage during the operation, though this may have occurred; and in others the [bleeding was due to the slipping of a ligature. I can readily believe that adhesions may give trouble, as in ovariotomy, but I trust that the future will show that if suitable cases be operated on adhesions will either not give unconquerable trouble, or may even not exist. My personal as well as my indirect experience in ovarian, uterine, and other abdominal tumours has convinced me that peritonitis, and therefore adhesions, almost never occur in small tumours which have not been subjected to nor caused pressure or irritation on neighbouring parts, therefore it is a most likely consequence that if these leucocythæmic spleen tumours be operated on early, we need apprehend little inconvenience from adhesions.

At present there is a young Jew, aged twenty-four, in the London Hospital under the joint care of Dr. Stephen Mackenzie and myself. At the proper time Dr. Mackenzie will doubtless give a complete medical history of the case; I wish, however, to state that I consider the case a fairly favourable one for the operation, because the disease is far from extreme, the patient is young, and because he will surely die if nothing be done. Dr. Mackenzie and I have put the true state of the case thoroughly before the patient and his relatives, and they all prefer to elect that the operation be done. Should it be performed, I assume the responsibility, and now comes the grave question, Am I justified in committing the patient's surgical suicide? The answer in casuistry seems to me to be plain, and it is this. The patient desires the operation on the remote chance of recovering; I operate on the equally remote chance (judging by present statistics, the actual value of which I have endeavoured to gauge) of his pulling through.

I have pondered out the steps of the operation, and have forethoughted possible complications, and should the operation take place, I sincerely trust, for the patient's sake, that the methods used may be successful.

I am, Sir, yours truly,

Grosvenor-street, W., Feb. 14th, 1882. H. A. REEVES.

"HEALTH OF CANNES."

To the Editor of THE LANCET.

SIR,—With reference to the letter of Dr. Menzies, that appeared in THE LANCET of Feb. 4th, in which it is stated that the carts that convey the offensive drainage from the cesspools are emptied only at night, I have to state that instead of this being the case the process of emptying took place during the whole of the afternoon of Feb. 11th last, creating so offensive a smell in the harbour as to compel the yacht *Chazalie* to leave at a moment's notice, and this had been going on for the two days the yacht was lying there. But whether the emptying, which takes place under a shed on the mole, occurs by night or by day, it makes it equally dangerous for yachts to lie in the harbour. I hope his may be a sufficient warning for all yachts to beware of Cannes.

I am, Sir, yours faithfully,

Feb. 16th, 1882 L. G.

"SWISS EXAMINATIONS."

To the Editor of THE LANCET.

SIR,—There is in your last number a letter on the Swiss examinations which I cannot allow to pass without a word of protestation, because people unacquainted with the real state of things might be induced to believe that the description is, on the whole, true, though most would be, I think, struck by several evident exaggerations. Dr. Wise considers that the standard of the Federal diploma is tolerably high; the fact is that there is perhaps no other country where so much has been done within the last few years to improve the rules on medical examinations, and we have now arrived at a point very nearly satisfactory to all except those who present themselves as candidates without being sufficiently prepared. The examination lasts about six weeks, and consists of two parts—the first written and practical, the second oral. For the first part we are examined on pathological anatomy, medicine, surgery (including bandaging), and obstetrics. We are also required to perform a post-mortem examination, two operations on the dead body, and to report on a case of medical jurisprudence. The second (*viva voce*) examination comprises topographical and pathological anatomy, description of surgical operations, materia medica and therapeutics, hygiene, medical jurisprudence, medicine (including mental diseases and diseases of children), surgery, obstetrics, and ophthalmology. A *viva voce* examination on diseases of the ear has, I believe, been added since I took my Federal diploma in 1879. Most candidates in 1881 were twenty-four to twenty-eight years old, and twenty-six per cent. failed to pass. In that same year thirty foreigners obtained Federal diplomas (medical and pharmaceutical). Formerly, possessors of foreign diplomas were admitted to practise in Switzerland after a simple *colloquium*, the consequence being an invasion of foreign quacks. Now foreigners must submit to the general rules, but this change was only effected in order to check an obvious and dangerous abuse. Every foreigner who conforms to the general rules and possesses the necessary amount of knowledge is admitted without any difficulty, and due indulgence is shown to those who speak the language imperfectly. In answer to the fourth paragraph of Dr. Wise's letter, I will certainly not say that frauds are impossible in our examinations; on the contrary, I am quite willing to admit that they are possible, and that they unhappily occur here and there, but they occur wherever examinations are passed, and not only in Switzerland. They reflect discredit on those who practise them, and not on the examination. To say that they are more frequent or more "winked at" in Switzerland than elsewhere is a pure misrepresentation, and my experience of examinations in Switzerland, Germany, and England does not tend to alter my conviction.

I remain, Sir, yours obediently,

J. KAISER, M.D. Bâle, M.R.C.S. Eng.

Queen Anne-street, W., Feb. 25th, 1882.

C. F. P.—The question should be addressed to the Secretary, Local Government Board, Whitehall, S.W.

Mr. W. S. Palmer (Camberwell).—Apply to the National Vaccine Establishment, Local Government Board, Whitehall, S.W.

Mr. A. More.—No. The hairs will grow unless their follicles are destroyed.

A would-be Student.—We cannot advise in the matter.

M. Guyot.—Thanks, our arrangements are complete in respect of the matter.

Dr. Julius Althaus.—The paper is marked for insertion.

Mr. J. T. Markley's verses, intended as a protest against ordinary pigeon shooting, and "addressed, in the interests of the Royal Society for the Prevention of Cruelty to Animals, to the fashionable ladies who patronise the heartless cruelty at Hendon, Hurlingham, and Monaco," are forcible and opportune, but scarcely suitable for our columns.

SMALL-POX: HOW IT IS SPREAD.

To the Editor of THE LANCET.

SIR,—In the Halifax Borough Hospital at present I have under treatment and surveillance a family—father, mother, and four children. The history of this family may prove useful, now that leave has been obtained to bring in a Bill for the propagation of small-pox. One child was removed from a common lodging-house, where they had all been living together, suffering from confluent small-pox (a bad case, child unvaccinated). The corporation sanitary authority took active steps to limit the disease. Another child was attacked with confluent small-pox (child unvaccinated). The mother was also taken ill. She had been vaccinated, but in her case, in place of confluent small-pox, there were about sixty or eighty well-marked vesicles. The father, a boy aged eleven, and a baby aged ten months had been exposed to the contagion. They have been in quarantine. There has not been a symptom of the disease; they had all been vaccinated. The corporation authorities destroyed the bedding. The guardians, acting on my advice, permitted destruction of all the clothing belonging to the family, supplying a complete outfit of new clean articles of clothing for the lot. This was true economy on their part, and they deserve credit for their liberality. There has not been another case in the town. The family will soon be discharged, and may move to another town without fear of carrying contagion with them in their clothes.—I remain, Sir, yours, &c.,

Horton House, Halifax, Feb. 14th, 1882. TH. M. DOLAN.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—When I wrote the letter which appeared in your issue of Jan. 21st, calling upon Mr. W. B. Hemming to furnish you and your readers with "a plain statement of the evidence on which he grounds the assertions in the second and concluding paragraphs of his letter of Jan. 14th," I did not anticipate that you would accompany his "rejoinder" in your next issue with the intimation that "you could not insert any more letters on the subject." What I would have done then had I so anticipated I must ask you to permit me in simple justice to do now—namely, to lay before you and your readers the late Mr. W. D. Hemming's own evidence, as indicated in the very last letter I received from him on the subject of Politzer's book, as to the "precise relations" which existed between the deceased gentleman and myself with regard to that work.

"My Dear Dr. Cassells,—I beg to acknowledge the receipt of my MSS. and your card. I am very sorry that you cannot 'see your way' to bringing out a joint translation of Politzer's book, in which I take much interest. Anyhow, I hope a translation of it will appear shortly from your pen, as it would be a great pity that the work should be lost to English readers, or that its publication in English should be long delayed, as owing to your being so much engaged, must, I fear, be inevitable. When you do bring it out I trust it may prove a success, though I must repeat my regret that you will not allow me to share the work with you. I will send your MSS. on shortly. I shall be glad to hear what answer you received from Dr. Carpenter.* With kind regards, yours very faithfully, "(Signed) W. DOUGLAS HEMMING.

"Glenalmond, Bournemouth, April 10th, 1880."

* This last sentence refers to my application to Dr. Carpenter to get Mr. W. D. Hemming made joint secretary with me in the otological section at the British Medical Association in Cambridge, and which was granted.

This letter will be found on careful reading to be so inconsistent with the claims put forward in the paragraphs above referred to as to render comment by me all but unnecessary. That I shared with him neither the honour nor the labour of translation is there made abundantly evident, and not less evident is the entire absence of any indication that he regarded my refusal so to share as the non-fulfilment of any "agreement." The only "agreement" ever made between us on the subject of Politzer's work was the one arranged in Cork, to which reference has been made. By it he engaged to write a clean copy of my translation for the printer, to correct proofs, and to make out an index, for which work he was to be paid. That "agreement," however, had to be departed from because of his insisting to have added to these duties those of joint translator. The book therefore has not only not the merit—whatever that may be—of containing a single line of Mr. Hemming's translation, but is without the advantage of having been otherwise in any way forwarded for publication by his labours. On the appearance, therefore, of the most unwarrantable claim put forward in your obituary notice, I had no alternative, in justice not merely to myself, but to those to whom I really have been indebted for assistance, than to make the correction which I did. I may say, in conclusion, that although the late Mr. Hemming and I failed to agree to co-operate in this matter, our relations continued to be none the less cordial in our subsequent intercourse; and I shall be very greatly surprised indeed if Mr. W. B. Hemming is able to produce evidence—which he has not yet attempted to do—that his son ever expressed himself so as to warrant the unfounded assertions which are now advanced as on his authority. I shall now let the matter rest.

I am, Sir, yours very truly,

Glasgow, Jan. 31st, 1882. JAS. PATTERSON CASSELLS.

*** We publish the above letter at the particular request of Dr. Cassells. As the question in dispute is of little professional importance, we must decline to insert any further communications on the subject.—ED. L.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Marshall, London; Professor Brown-Séquard, Paris; Mr. T. Holmes, London; Dr. Cobbold, London; Dr. Walter Whitehead, Manchester; Dr. Wickham Legg, London; Dr. Kent Spender, Bath; Dr. Oliver, Newcastle-upon-Tyne; Mr. Metcalfe Johnson, Lancaster; Dr. Capon, London; Dr. Danford Thomas; Dr. L. Louis; Mr. Carrington Sykes, Barnsley; Dr. Kesteven, London; Dr. Ewart, London; Mr. Adams, Maidstone; Dr. Gramshaw, Gravesend; Dr. MacCormac, Belfast; Mr. Collins, Paignton; Dr. Latham, Cambridge; Mr. Royes Bell, London; Dr. Vincent Jackson, Wolverhampton; Dr. W. C. James, London; Mr. Martindale, London; Mr. J. T. Markley, Eastbourne; Mr. Pugin Thornton, London; Mr. Cresswell, London; Dr. Magens, St. Thomas, D., W.I.; Mr. P. Swain, Plymouth; Dr. C. E. Saunders, London; Mr. L. Kemp, London; Dr. Redmond, Dublin; Mr. Cowen, London; Mr. Cole, Holywell; Dr. Boyd; Dr. Hunter Mackenzie, Edinburgh; Mr. G. D. Sutherland, Richmond; Mr. Francis Mason, London; Dr. Evatt; Dr. Althaus; Dr. Stilman, London; Mr. Barton; Dr. Hunt, Dalston; Dr. Boulton, London; Mr. Bellamy, London; Dr. Latham, Cambridge; Dr. Lamb, London; Mr. Hardman, Blackpool; Dr. Collis, London; Dr. Zinkeisen, Cork; Mr. B. Bell, Edinburgh; Mr. Palmer, London; Mr. Barraud, London; Mr. Infuta, London; Mr. Benham, Barons-court; Dr. R. Smith, Cheltenham; Dr. Davy, Exeter; Mr. More, Dublin; Mr. Barwell, London; Mr. Lightfoot, Brighton; Dr. Beeli, Davos Platz; Dr. Kaeser, London; Dr. Reginald Thompson, London; Dr. Curtis, London; Mr. O. Hehner, London; Mr. Hope, Netherfield; Dr. J. A. Campbell, Glasgow; Dr. Clouston, Edinburgh; Mr. Moreland, London; Dr. More, Rothwell; Dr. Squire, London; Messrs. Christy and Co., Sheffield; Mr. Williams, Exeter; Mr. J. S. Turner, London; Miss Tuke, Carnforth; Mr. Weakley, Birmingham; Dr. Macartney, Lahore; Mr. Double, Birmingham; Dr. Barton, Lifford; Mr. Rainer, Ipswich; Dr. Newman, Bowness; Messrs. Shaw and Son, King's Lynn; Mr. W. R. Buchan, Glasgow; Mr. Hickman, Newbury; Dr. Padley, Swansea; M. Guyot, Paris; Mr. Young, Chilton Polden; Mr. Lovesen, London; Mr. Bellamy, London; Surgeon; Universitatis; Baffled; Expectans; Orthodox; B. C., London; Q. G.; Medicus; Iota; W.; A. D M.; Nonensis; C. D.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Beust, Edinburgh; Dr. Hayes, London; Messrs. Boulton and Paul, Norwich; Mr. Whipple, Kew; Mr. King, Leeds; Mr. Maycock, Leamington; Mr. Jackman, Coggeshall; Mr. Barney, Tiverton; Miss Thompson, Oldham; Mr. Stewart, Gringley-on-the-Hill; Mr. Williams, Oxford; Mr. Cornish, Manchester; Messrs. Vezey and Co., Bath; Mr. D'Orsey, London; Mr. Newland, Hammersmith; Dr. Roberts, May Fair; Mr. Holloway, Kidderminster; Dr. Pinder, Bow; Mr. E. A. White, Malmesbury; Dr. Maxwell, Gainsboro'; Mr. Young, Bridgwater; Mr. Garden, East Harding; Mr. Birdwood; Mr. Healy, Kennington; Dr. M'Naughton, Blackpool; Mr. Calligan, Chester; Mr. Jordan, Birmingham; Dr. Clark, Liverpool; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Bernard, Hemel Hempstead; Mr. Banks, Wolverhampton; Surgeon, Horncastle; Boaz; Lambda; M.R.C.P.; Postmaster, Abingdon; M.D., Newcastle-on-Tyne; A. K., Sheffield; Chemicus, Guy's Hospital; Home; E. J., New Ferry; P. C.; H. E., Atherstone; A. B. C.; Beta, London; Medicus, Norwich; Alpha, Edinburgh; Principal, Seaford; Medicus, Bishopsgate; V. J. C.; X. Y. Z.; T. R. F.; Omicron; Medea; H. H., Derby; B. R. A., London; M. A. R.; P. O. M.; Alpha, Worcester; Surgeon; H. R., Mile-end; &c., &c.

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